INDEX TO VOLUME 76, 1969

THE AMERICAN MATHEMATICAL MONTHLY

Author Index 1191
Subject Index 1196
Problems and Solutions Index 1200
Review Index 1202
News and Notices Index 1217
MAA and its Sections Index 1218

AUTHOR INDEX

ABELES, FRANCINE. Points of division and affine geometry, 798–799.

ABIAN, ALEXANDER. On the independence of set theoretical axioms, 787–790.

ABRAMSON, H. D. On selecting separated objects from a row, 1130–1131.

ACZEL, J. Condition for a loop to be a group and for a groupoid to be a semigroup, 547–549.

ALDER, H. L. Partition identities—from Euler to the present, 733–746.

ALSPAUGH, J. W. See Reys, R. E.

ANDREWS, G. E. On radix representation and the Euclidean algorithm, 66–68.

ANON. Note on Simpson's rule, 929–930.

APOSTOL, T. M. Some explicit formulas for the exponential matrix e^{tA}, 289–292.

APPELBAUM, ELIZABETH. Left Artinian rings that are division rings, 538–539.

ARLT, G. O. Consultation service for graduate programs, 824.

ARTEMIADIS, NICOLAS and KUIPERS, LAURENS. On the Weyl criterion in the theory of uniform distribution of modulo 1, 654–656.

ASKEY, RICHARD. Mehler's integral for P_n (cos θ), 1046–1049.

AULICINO, D. J. and GOLDFELD, MORRIS. A new relation between primitive roots and permutations, 664–666.

BAKER, K. A. A Krein-Milman theorem for partially ordered sets, 282–283.

BEAR, H. S. A general chaining lemma, 791–795.

BECHTELL, HOMER. A note on permutable complements, 799–800.

BEESLEY, E. M. An integral representation for the Euler numbers, 389–391.

BEINEKE, L. W. and PIPPERT, R. E. Minimal regular extensions of oriented graphs, 145–151.

BELL, E. J. and DAELLENBACH, H. G. A note on doubly-stochastic matrices, 284–285.

———, and ———. Correction to "A note on doubly-stochastic matrices," 809.

BENSON, D. C. An elementary solution of the Brachistochrone problem, 890–894.

BILLINGSLEY, PATRICK. On the central limit theorem for the prime divisor function, 132–139.

BING, R. H. The elusive fixed point property, 119–132.

BLAKNEY, S. S. and GIBNEY, T. C. Improving elementary instruction in mathematics, 1057–1060.

BOAS, R. P., JR. Lhospital's rule without mean-value theorems, 1051–1053.

BOLLMAN, D. and RAMÍREZ, H. On the enumeration of matrices over finite commutative rings, 1019–1023.

BORWEIN, D. and MEIR, A. A property of gradients, 648–649.

BRAUER, RICHARD. On a theorem of Frobenius, 12–15.

BRAY, H. G. A generalization of a result of Frobenius, 924–925.

BROUSSEAU, BROTHER ALFRED. See Ivanoff, V. F.

BROWN, ARLEN. An elementary example of a continuous singular function, 295–297.

BROWN, W. S. Rational exponential expressions and a conjecture concerning π and e, 28–34.

———. The kiss precise, 661–663.

BROWN, W. S. and GRAHAM, R. L. An irreducibility criterion for polynomials over the integers, 795–797.

BRUTER, C. P. An algebraic structure for graphs on the factorization of groupoids, 658–661.

CALLAHAN, F. P. Pivotal role of the triple cross product, 649–651.
CASHWELL, E. D. and EVERETT, C. J. The mean of a function $x(\nu)$ relative to a function $w(\xi,\nu)$, 252–261.
CERUTTI, ELSIE and DAVIS, P. J. Formac meets Pappus—some observations, 895–905.
CHAKERIAN, G. D. Intersection and covering properties of convex sets, 753–766.
CHERNOFF, P. R. An area-width inequality for convex curves, 34–35.
COHEN, ECKFORD. Legendre's identity, 611–616.
COMFORT, W. W. A short proof of Marczewski's separability theorem, 1041–1042.
CONWAY, J. B. The inadequacy of sequences, 68–69.
COOKE, W. P. "Rye whiskey" in contrapositive, 1051.
COPPEL, W. A. J. B. Fourier—On the occasion of his two hundredth birthday, 468–483.
CROCKER, ROGER. On residues of n^n, 1028–1029.
CROWNOVER, R. M. A maximum modulus principle for closed algebras of Lipschitz functions, 1039–1040.
DAELLENBACH, H. G. See Bell, E. J.
DAIGNEAULT, AUBERT. Injective envelopes, 766–774.
DARST, R. B. An application of two estimates for e, 918–919.
DAVIS, P. J. See Cerutti, Elsie.
DAYKIN, D. E. and ELIEZER, C. J. Elementary proofs of basic inequalities, 543–546.
DE BRUIJN, N. G. Filling boxes with bricks, 37–40.
DEELY, J. J. See Kruse, R. L.
DI PAOLA, J. W. When is a totally symmetric loop a group?, 249–252.
DJOKOVIC, D. Z. Note on two problems on matrices, 652–654.
DRASIN, DAVID. Reflections of the Notes Editor, 647–648.
———. Complements and comments, 1123–1124.
DUBINS, L. E. An elementary proof of Bochner's finitely additive Radon-Nikodym theorem, 520–523.
DUDLEY, UNDERWOOD. History of a formula for primes, 23–28.
DUEMMEL, JAMES. Continuous dependence on parameters, 294–295.
DUKE, R. A. Can the complete graph with $2n+1$ vertices be packed with copies of an arbitrary tree having n edges?, 1128–1130.
DYER, J. A. and JOHNSON, W. B. Some properties of spaces of uniformly quasi-continuous functions, 489–494.
EBEY, S. and SITARAM, K. Frobenius groups and Wedderburn's theorem, 526–528.
ELIASON, S. B. Nonperiodicity of solutions of an nth order equation, 657–658.
ELIEZER, D. B. See Daykin, D. E.
ELLIOTT, HERBERT, JR. Transcendentals and generators in commutative polynomial rings, 267–270.
EVANS, G. C. Autobiographical Notes, 10–12.
———. Addendum to "Autobiographical Notes," 248.
EVANS, R. J. On blocks of N consecutive integers, 48–49.
EVERETT, C. J. See Cashwell, E. D.
FARLOW, S. J. A sequence of families converging in an equiconvergent manner, 533–535.
FARRELL, MARGARET A. Mathematics instruction of the culturally disadvantaged young adult, 1053–1056.
FEHR, H. F. and FEY, JAMES. The secondary school mathematics curriculum improvement study, 1132–1137.
FELDSTEIN, ALAN. Teaching using experimental mathematics, 61–66.
FEY, JAMES. See Fehr, H. F.
FILLMORE, P. A. On similarity and the diagonal of a matrix, 167–169.
FINKBEINER, D. T. and NEFF, J. D. New advanced placement courses in mathematics, 686–687.
FOX, R. H. A refutation of the article, institutional influences in the graduate training of productive mathematicians, 1060–1062.
FRASER, OWEN and GORDON, BASIL. On representing a square as the sum of three squares, 922–923.
FULTON, C. M. Hyperspheres in spaces of constant curvature, 43–44.
GALE, DAVID. How to solve linear inequalities, 589–599.
GANDHI, J. M. On numbers related to partitions of a number, 1033–1036.
GANTNER, T. E. Some corollaries to the metrization lemma, 45–47.
GENTILE, E. R. A proof of the structure theorem of finite Abelian groups, 60–61.
GERST, I. Some series for Euler's constant, 273–275.
GIBNEY, T. C. See Blakney, S. S.

GIBSON, P. M. An identity between permanents and determinants, 270–271.
GILMER, ROBERT. A note on semigroup rings, 36–37.
GOFFMAN, CASPER. And what is your Erdös number?, 791.
GOLDBERG, SEYMOUR. On Sobczyk's projection theorem, 523–526.
GOLDFELD, MORRIS. See Aulicino, D. J.
GOLDMAN, JERRY and KASS SEYMOUR. Linearization in rings and algebras, 348–355.
GOLDSMITH, D. L. A remark about Euler's function, 182–184.
GOODMAN, A. W. and GOODMAN, GARY. Generalizations of the theorems of Pappus, 355–366.
GOODMAN, GARY. See Goodman, A. W.
GORDON, BASIL. See Fraser, Owen.
GRAHAM, R. L. See Brown, W. S.
GREENLEAF, NEWCOMB. On Fermat's equation in $\mathfrak{C}(i)$, 808–809.
GRIFFIN, F. L. Some teaching reminiscences, 460–468.
GRILLET, P. A. Intersections of maximal ideals in semigroups, 503–509.
GRIMM, C. A. A conjecture on consecutive composite numbers, 1126–1128.
GROSS, FRED. On functional values of families of analytic functions, 528–530.
HALPERN, BENJAMIN. The robot and the rabbit—a pursuit problem, 140–145.
HANISCH, H. HIRSCH, W. M. and RENYI, A. Measures in denumerable spaces, 494–502.
HARRIS, D. J. and THORP, B. L. D. Uniform convergence and rearrangement, 801–802.
HARUKI, HIROSHI. On a characteristic property of a polynomial as a continuous mapping from the z-plane into the w-plane, 271–272.
HEISLER, BROTHER JOSEPH. Ideals and polynomial functions over matrix rings, 285.
HERSTEIN, I. N. On the Ph.D. in mathematics, 818–824.
HILL, D. B. Stability in linear systems, 410–411.
HIRSCH, W. M. See Hanisch, H.
HIRSHON, R. On cancellation in groups, 1037–1039.
HOLLAND, S. S., JR. A Hilbert-space proof of the Banach-Steinhaus theorem, 40–41.
HORN, R. A. and MEREDITH, R. D. On a functional equation arising in probability, 802–804.
HUFF, R. E. Sigma-finiteness and Haar measure, 1042–1043.
IVANOFF, V. F. and BROUSSEAU, BROTHER ALFRED. Relations in polygons, 373–379.
JENSEN, J. A. Note on proper and generalized eigenvectors, 398–399.
JETTE, A. D. The path of a charged particle in the field of a magnetic monopole, 164–167.
JOHNSON, W. B. See Dyer, J. A.
JONES, W. R. and LANDAU, M. D. The relation between the derivatives of ff^{-1}, 816–817.
JORDAN, J. H. The magnitude of partial quotients, 800–801.
JOSEPH, J. E. Continuous functions and spaces in which compact sets are closed, 1125–1126.
KAHANE, CHARLES. On operators commuting with differentiation, 171–173.
KAI-MENG, CHAN. An alternative formulation of an unsolved problem of set theory, 53.
———. A note on fixed-point stochastic matrices, 185–186.
———. The distance between sets, 806–807.
KANNAN, R. Some results on fixed points—II, 405–408.
KASS, SEYMOUR. See Goldman, Jerry.
KAZARINOFF, N. D. A report on the Dubinsky affair, 1173–1175.
KENNEDY, H. C. Is there an elementary proof of Peano's existency theorem for first order differential equations, 1043–1045.
KERR, R. D. See Reys, R. E.
KEYNES, H. B. A note on universal flows, 276–277.
KIRCH, A. M. A countable, connected, locally connected Hausdorff space, 169–171.
KIRCH, M. R. A class of spaces in which compact sets are finite, 42.
KILLGROVE, R. B. Unusual binary operations for defining lines, 58–59.
KLAMKIN, M. S. and NEWMAN, D. J. Flying in a wind field, I, 16–23.
———. Flying in a wind field, II, 1013–1019.
KLARNER, D. A. Algebraic theory for difference and differential equations, 366–373.
KLEE, VICTOR. Can a plane convex body have two equichordal points?, 54–55.
———. Can nine tetrahedra form a neighboring family?, 178–179.
———. Is every polygonal region illuminable from some point?, 180.
———. What is the expected volume of a simplex whose vertices are chosen at random from a given convex body?, 286–288.

———. Is there an n for which $\phi(x)=n$ has a unique solution?, 288–289.
———. Can the boundary of a d-dimensional convex body contain segments in all directions?, 408–410.
———. Is a body spherical if its HA-measurements are constant?, 539–542.
———. Can all convex Borel sets be generated in a Borelian manner within the realm of convexity?, 678–679.
———. What are the intersection graphs of arcs in a circle?, 810–813.
KOOPMANS, L. H. Some simple singular and mixed probability distributions, 297–299.
KOUNIAS, E. G. Remarks concerning the Riccati equation, 261–267.
KRONK, H. V. Does there exist a hypotraceable graph?, 809–810.
———. Is the square of every nonseparable graph Hamiltonian, 1045–1046.
KRUSE, R. L. and DEELY, J. J. Joint continuity of monotonic functions, 74–76.
KUIPERS, LAURENS. See Artemiadis, Nicolas.
LAHIRI, D. B. Some congruences for the elementary divisor functions, 395–397.
LAIBLE, J. M. A new graduate degree in mathematics, 687–689.
LAITONE, E. V. Hypergeometric differential equation with unusual properties, 401–404.
LANDAU, M. D. See Jones, W. R.
LEE, M. A. Some irreducible polynomials which are reducible mod p for all p, 1125.
LEFSCHETZ, SOLOMON. The early development of algebraic geometry, 451–460.
LEHNER, J. The Picard Theorems, 1005–1012.
LEIGHTON, WALTER. On the differential equation $xy''-(x+n)y'+ny=0$, 52–53.
LEONARD, J. L. On nonmeasurable sets, 551–552.
LEVINE, NORMAN. Correction to "The Superset Topology," 539.
LEVINSON, NORMAN. A motivated account of an elementary proof of the prime number theorem, 225–245.
LIEBECK, HANS. Even and odd permutations, 668.
LIGHTNER, J. E. The effect of the recommendations of the Committee on the Undergraduate Program in Mathematics upon the mathematics curricula of the Colleges of Maryland, 681–686.
LLOYD, D. B. Reducibility of polynomials of odd degree (II), 919–921.
LOIZOU, G. On the characteristic roots of a matrix, 638–643.
LONG, P. E. Functions with closed graphs, 930–932.
LORRAIN, FRANÇOIS. Notes on topological spaces with minimum neighborhoods, 616–627.
LUTHAR, R. S. Another view of Rolle's theorem, 680–681.
LUTHER, N. Y. Characterizations of convergence in probability, 813–814.
MACWILLIAMS, JESSIE. Orthogonal matrices over finite fields, 152–164.
MARCUS, MARVIN. Subpermanents, 530–533.
MAXSON, C. J. On imbedding fields in nontrivial near-fields, 275–276.
MCKAY, J. H. The William Lowell Putnam Mathematical Competition, 909–915.
MEDEIROS, L. A. On nonlinear differential equations in Hilbert spaces, 1024–1027.
MEIR, A. See Borwein, D.
MEREDITH, R. D. See Horn, R. A.
MILES, M. J. An extremum property of convex functions, 921–922.
MILNOR, JOHN. A problem in cartography, 1101–1112.
MITCHELL, BARRY. Spectral sequences for the layman, 599–605.
MITRA, S. S. Continuous open maps on the unit interval, 817–818.
MOORE, D. S. Limiting distributions for sample quantiles, 927–929.
NANJUNDIAH, T. S. Note on the beta and gamma functions, 411–413.
———. Extensions of Oliver's theorem, 666–667.
NEFF, J. D. See Finkbeiner, D. T.
NEWMAN, D. J. See Klamkin, M. S.
NIVEN, IVAN and ZUCKERMAN, H. S. On certain sequences, 386–389.
NIVEN, IVAN. Formal power series, 871–889.
NYMANN, J. E. An application of Diophantine approximation, 668–671.
PEDERSON, R. N. The Jordan curve theorem for piecewise smooth curves, 605–610.
PERISASTRI, M. On Fermat's last theorem, 671–675.
PHULL, S. S. A definite integral for Bessel's function, 549–551.
PIPPERT, R. E. See Beineke, L. W.
POLYA, GEORGE. Some mathematicians I have known, 746–753.

PURSELL, L. E. The ring of real polynomials, 509–514.
RAIMI, R. A. On the distribution of first significant figures, 342–348.
RAINA, B. L. On Fermat's last theorem, 49–51.
RAMALEY, J. F. Buffon's noodle problem, 916–918.
RAMIREZ, H. See Bollman, D.
RAVISANKAR, T. S. A note on a theorem of Sagle, 652.
REDHEFFER, RAYMOND. The homotopy theorems of function theory, 778–787.
REICH, SIMEON. On mean value theorems, 70–73.
RENYI, A. See Hanisch, H.
REYS, R. E., KERR, R. D. and ALSPAUGH, J. W. Mathematics Training of Secondary Mathematics Teachers, 933–937.
RICE, P. M. A topological characterization of the real numbers, 184–185.
ROBERTS, A. W. The derivative as a linear transformation, 632–638.
ROBERTS, J. B. Integral power residues as permutations, 379–385.
ROSENCRANS, STEVEN. Basis-free proof of $\delta J/\delta t = J \operatorname{div} V$, 292–294.
ROSENTHAL, PETER. Are almost commuting matrices near commuting matrices?, 925–926.
RUBEL, L. A. and TAYLOR, B. A. Functional analysis proofs of some theorems in function theory, 483–489.
RUDIN, MARY ELLEN. Souslin's conjecture, 1113–1119.
RYDER, G. H. Solutions of a functional differential equation, 1031–1033.
SALKIND, C. T. International High school competition, 77.
SALLEE, G. T. Are equidecomposable plane convex sets convex equidecomposable?, 926–927.
SCHAUMBERGER, NORMAN. The evaluation of $\int_a^b x^k dx$, 546–547.
SCHECHTER, MURRAY. Hermite-Birkhoff interpolation problems with complex nodes, 1119–1122.
SEBASTIAN, J. D. Some computer solutions to the reflecting queens problem, 399–400.
SERRIN, JAMES and VARBERG, D. E. A general chain rule for derivatives and the change of variables formula for the Lebesgue integral, 514–520.
SHEPHERDSON, J. C. Weak and strong induction, 989–1004
SIMON, BARRY. Uniform convergence of Fourier series, 55–56.
———. Some pictorial compactifications of the real line, 536–538.
SINGER, RICHARD. Some applications of a morphism, 1131–1132.
SITARAM, K. See Ebey, S.
SMALE, S. What is global analysis?, 4–9.
SMILEY, M. F. An introduction to Hestenes ternary rings, 245–248.
SONI, KUSUM. A note on Fourier kernels, 174–176.
SPANIER, E. Grammars and languages, 335–342.
SPRECHER, D. A. On similarity in functions of several variables, 627–632.
STARK, E. L. Another proof of the formula $\Sigma 1/k^3 = \pi^2/6$, 552–553.
STEIGER, W. L. On a generalization of the Cauchy-Schwarz inequality, 815–816.
SU, LI PI. A homology theorem for rings of functions, 804–806.
SWISTAK, J. M. A note on Fermat's last theorem, 173–174.
TAYLOR, B. A. See Rubel, L. A.
THOMAS JOHN. A regular space, not completely regular, 181–182.
THOMAS, J. P. The long line as a subset of $P(R)$, 675–677.
THORP, B. L. D. See Harris, D. J.
TORNHEIM, LEONARD. Convexity in the theory of equations, 391–394.
TRAHAN, D. H. The mixed partial derivatives and the double derivative, 76–77.
TURNER, NURA. Report of the Upstate New York MAA contest section—British Math Olympiad competition, 77–81.
UTZ, W. R. An application of the Wronskian, 56–57.
VARBERG, D. E. See Serrin, James.
VREDENDUIN, P. G. J. A paradox of set theory, 59–60.
WALSH, J. L. Approximation to a function by a polynomial in another function, 1049–1050.
WARD, H. N. An extension of a theorem on monomial groups, 534–535.
WEINERT, H. J. Remarks on ordered semigroups, 1029–1031.
WENNER, B. R. The uncountability of the reals, 679–680.

WHITEMAN, R. A. Compactness and certain subclasses of Schlicht functions, 643–647.
WHITLEY, J. N. On Newton's inequality for real polynomials, 905–909.
WILKER, J. B. Four proofs of a generalization of the Descartes circle theorem, 278–282.
WILLIAMS, R. K. On expansive homeomorphisms, 176–178.
ZIRAKZADEH, A. A model for the finite projective spaces with three points on every line, 774–778.
ZUCKERMAN, H. S. See Niven, Ivan.

SUBJECT INDEX

CLASSIFICATION

1. General..... 1196
2. Mathematical Education..... 1196
3. Foundations and Set Theory..... 1196
4. Combinatorial Analysis..... 1196
5. Number Theory..... 1197
6. Linear Algebra..... 1197
7. Algebra..... 1197
8. Real Analysis..... 1198
9. Complex Analysis..... 1198
10. Differential Equations..... 1198
11. Abstract Analysis..... 1198
12. Geometry..... 1199
13. Topology..... 1199
14. Probability and Statistics..... 1199
15. Computer Science..... 1199
16. Applied Mathematics..... 1199

1. GENERAL

COOKE, W. P., 1051.
COPPEL, W. A., 468.
Distinguished Service Award to Professor Edward G. Begle, 1.
DRASIN, DAVID, 647, 1123.
Editorial Notices, 2, 119, 451, 589, 681.
EVANS, G. C., 10, 248.
Evolution of pure mathematics, 932.
Ford Awards Announcement, 864.
GOFFMAN, CASPER, 791.
GRIFFIN, F. L., 460.
International High School Competition, 77.
KAZARINOFF, N. D., 1173.
MCKAY, J. H., 909.
POLYA, GEORGE, 746.
Prize Contest for Undergraduates, 3.
Putnam Mathematical Competition Announcement, 864.
Statement of Policy, 2.

2. MATHEMATICAL EDUCATION

ALSPAUGH, J. W., 933.
ARLT, G. O. 824.
BLAKNEY, S. S., 1057.
FARRELL, MARGARET A., 1053.
FEHR, H. F., 1132.
FEY, JAMES, 1132.
FINKBEINER, D. T., 686.
FOX, R. H., 1060.
GIBNEY, T. C., 1057.
HERSTEIN, I. N., 818.
KERR, R. D., 933.
LAIBLE, J. M., 687.
LIGHTNER, J. E., 681.
NEFF, J. D. 686.
REYS, R. E., 933.
TURNER, NURA, 77.

3. FOUNDATIONS AND SET THEORY

ABIAN, ALEXANDER, 787.
BROWN, W. S., 28.
COOKE, W. P., 1051.
KAI-MENG, CHAN, 53.
RUDIN, MARY ELLEN, 1113.
SHEPHERDSON, J. C., 989.
SPANIER, E., 335.
VREDENDUIN, P. G. J., 59.
WENNER, B. R., 679.

4. COMBINATORIAL ANALYSIS

ABRAMSON, H. D., 1130.
BEINEKE, L. W., 145.
BOLLMAN, D., 1019.
DE BRUIJN, N. C., 37.
DUKE, R. A., 1128.
KRONK, H. V., 809.
NIVEN, IVAN, 871.
NYMANN, J. E., 668.
PIPPERT, R. E., 145.
RAMIREZ, H., 1019.

5. NUMBER THEORY

ALDER, H. L., 733.
ANDREWS, G. E., 66.
ARTEMIADIS, NICOLAS, 654.
AULICINO, D. J., 664.
BEESLEY, E. M., 389.
COHEN, ECKFORD, 611.
CROCKER, ROGER, 1028.
DE BRUIJN, N. G., 37.
DUDLEY, UNDERWOOD, 23.
EVANS, R. J., 48.
FRASER, OWEN, 922.
GANDHI, J. M., 1033.
GERST, I., 273.
GOLDFELD, MORRIS, 664.
GOLDSMITH, D. L., 182.
GORDON, BASIL, 922.
GREENLEAF, NEWCOMB, 808.
GRIMM, C. A., 1126.
JORDAN, J. H., 800.
KLEE, VICTOR, 288.
KUIPERS, LAURENS, 654.
LEE, M. A., 1125.
LEVINSON, NORMAN, 225.
LIEBECK, HANS., 668.
NIVEN, IVAN, 386, 871.
PERISASTRI, M., 671.
RAINA, B. L., 49.
ROBERTS, J. B., 379.
SWISTAK, J. M., 173.
ZUCKERMAN, H. S., 386.

6. LINEAR ALGEBRA

APOSTOL, T. M., 289.
BELL, E. J., 284, 809,
DAELLENBACH, H. G., 284, 809.
DJOKOVIĆ, D. Ž., 652.
FILLMORE, P. A., 167.
GALE, DAVID, 589.
GIBSON, P. M., 270.
JENSEN, J. A., 398.
LOIZOU, G., 638.
MACWILLIAMS, JESSIE, 152.
MARCUS, MARVIN, 530.
ROSENTHAL, PETER, 925.

7. ALGEBRA

ACZEL, J., 547.
APPELBAUM, ELIZABETH, 538.
BECHTELL, HOMER, 799.
BOLLMAN, D., 1019.
BRAUER, RICHARD, 12.
BRAY, H. G., 924.
BROWN, W. S., 795.
BRUTER, C. P., 658.
DAIGNEAULT, AUBERT, 766.
DAYKIN, D. E., 543.
DI PAOLA, J. W., 249.
EBEY, S., 526.
ELIEZER, C. J., 543.
ELLIOTT, HERBERT, JR., 267.
GENTILE, E. R., 60.
GILMER, ROBERT, 36.
GOLDMAN, JERRY, 348.
GRAHAM, R. L., 795.
GRILLET, P. A., 503.
HEISLER, BROTHER JOSEPH, 285.
HIRSHON, R., 1037.
KASS, SEYMOUR, 348.
KLARNER, D. A., 366.
LAHIRI, D. B., 395.
LEFSCHETZ, SOLOMON, 451.
LLOYD, D. B., 919.
MAXSON, C. J., 275.
MITCHELL, BARRY, 599.
PURSELL, L. E., 509.
RAMIREZ, H., 1019.
RAVISANKAR, T. S., 652.
SINGER, RICHARD, 1131.
SITARAM, K., 526.
SMILEY, M. F., 245.
TORNHEIM, LEONARD, 391.
WARD, H. N., 534.
WEINERT, H. J. 1029.

8. REAL ANALYSIS

ANON, 929.
ASKEY, RICHARD, 1046.
BOAS, R. P., JR., 1051.
BORWEIN, D., 648.
BROWN, ARLEN, 295.
CASHWELL, E. D., 252.
COPPEL, W. A., 468.
DARST, R. B., 918.
DEELY, J. J., 74.
DUBINS, L. E., 520.
EVERETT, C. J., 252.
GERST, I., 273.
HARRIS, D. J., 801.
HORN, R. A., 802.
JONES, W. R., 815.
JORDAN, J. H., 800.
KAI-MENG, CHAN, 806.
KLEE, VICTOR, 408, 678.
KRUSE, R. L., 74.
LANDAU, M. D., 815.
LEIGHTON, WALTER, 52.
LEONARD, J. L., 551.
LUTHAR, R. S., 680.
MEIR, A., 648.
MEREDITH, R. D., 802.
MILES, M. J., 921.
NANJUNDIAH, T. S., 411, 666.
NYMANN, J. E., 668.
PHULL, S. S., 549.
REICH, SIMEON, 70.
ROBERTS, A. W., 632.
SCHAUMBERGER, NORMAN, 546.
SERRIN, JAMES, 514.
SIMON, BARRY, 55.
SMALE, S., 4.
SONI, KUSUM, 174.
SPRECHER, D. A., 627.
STARK, E. L., 552.
STEIGER, W. L., 814.
THORP, B. L. D., 801.
TRAHAN, D. H., 76.
VARBERG, D. E., 514.
WALSH, J. L., 1049.
WENNER, B. R., 679,.
WHITLEY, J. N., 905.

9. COMPLEX ANALYSIS

ASKEY, RICHARD, 1046.
GROSS, FRED, 528.
HARUKI, HIROSHI, 271.
LEHNER, J., 1005.
PEDERSON, R. N., 605.
REDHEFFER, RAYMOND, 778.
RUBEL, L. A., 483.
SCHECHTER, MURRAY, 1119.
TAYLOR, B. A., 483.
WHITEMAN, R. A., 643.

10. DIFFERENTIAL EQUATIONS

BENSON, D. C., 890.
DUEMMEL, JAMES, 294.
ELIASON, S. B., 657.
HILL, D. B., 410.
JETTE, A. D., 164.
KENNEDY, H. C., 1043.
KLARNER, D. A., 366.
KOUNIAS, E. G., 261.
LAITONE, E. V., 401.
MEDEIROS, L. A., 1024.
RYDER, G. H., 1031.
UTZ, W. R., 56.

11. ABSTRACT ANALYSIS

BAKER, K. A., 282.
BEAR, H. S., 791.
CONWAY, J. B., 68.
CROWNOVER, R. M., 1039.
DUBINS, L. E., 520.
DYER, J. A., 489.
FARLOW, S. J., 533.
GOLDBERG, SEYMOUR, 523.
HANISCH, H., 494.
HIRSCH, W. M., 494.
HOLLAND, S. S., Jr., 40.
HUFF, R. E., 1042.
JOHNSON, W. B., 489.
KAHANE, CHARLES, 171.
KANNAN, R., 405.
RENYI, A., 494.
RUBEL, L. A., 483.
SU, LI PI, 804.
TAYLOR, B. A., 483.

12. GEOMETRY

ABELES, FRANCINE, 798.
BENSON, D. C., 890.
BROUSSEAU, BROTHER ALFRED, 373.
BROWN, W. S., 661.
CALLAHAN, F. P., 649.
CHAKERIAN, G. D., 753.
CHERNOFF, P. R., 34.
FULTON, C. M., 43.
GOODMAN, A. W., 355.
GOODMAN, GARY, 355.
IVANOFF, V. F., 373.
KILLGROVE, R. B., 58.
KLEE, VICTOR, 54, 178, 180, 286, 408, 539, 678, 810.
LEFSCHETZ, SOLOMON, 451.
MILES, M. J., 921.
MILNOR, JOHN, 1101.
RAMALEY, J. F., 916.
ROSENCRANS, STEVEN, 292.
RUBEL, L. A., 483.
SALLEE, G. T., 926.
TAYLOR, B. A., 483.
TORNHEIM, LEONARD, 391.
WILKER, J. B., 278.
ZIRAKZADEH, A., 774.

13. TOPOLOGY

BAKER, K. A., 282.
BING, R. H., 119.
COMFORT, W. W., 1041.
FULTON, C. M., 43.
GANTNER, T. E., 45.
JOSEPH, J. E., 1125.
KEYNES, H. B., 276.
KIRCH, A. M., 169.
KIRCH, M. R., 42.
LEVINE, NORMAN, 539.
LONG, P. E., 930.
LORRAIN, FRANÇOIS, 616.
MITRA, S. S., 817.
PEDERSON, R. N., 605.
RICE, P. M., 184.
SIMON, BARRY, 536.
SPRECHER, D. A., 627.
THOMAS, JOHN, 181.
THOMAS, J. P., 675.
WILLIAMS, R. K., 176.

14. PROBABILITY AND STATISTICS

BELL, E. J., 284.
BILLINGSLEY, PATRICK, 132.
DAELLENBACH, H. G., 284.
HALPERN, BENJAMIN, 140.
HANISCH, H., 494.
HIRSCH, W. M., 494.
HORN, R. A., 802.
KAI-MENG, CHAN, 185.
KOOPMANS, L. H., 297.
LUTHER, N. Y., 812.
MEREDITH, R. D., 802.
MOORE, D. S., 927.
RAIMI, R. A., 342.
RAMALEY, J. F., 916.
RENYI, A., 494.

15. COMPUTER SCIENCE

BROWN, W. S., 28.
CERUTTI, ELSIE, 895.
DAVIS, P. J., 895.
FELDSTEIN, ALAN, 61.
GALE, DAVID, 589.
SEBASTIAN, J. D., 399.
SPANIER, E., 335.

16. APPLIED MATHEMATICS

GALE, DAVID, 589.
HALPERN, BENJAMIN, 140.
JETTE, A. D., 164.
KLAMKIN, M. S., 16, 1013.
NEWMAN, D. J., 16, 1013.
ROSENCRANS, STEVEN, 292.

PROBLEMS AND SOLUTIONS

PROBLEMS PROPOSED

Abhyankar, S., 701, 948.
Aissen, Michael, 1063.
Anon, 188, 1074, 1138.
Bell, E. F., 301.
Beumer, M. G., 690.
Bloom, D. M., 300.
Bond, John, 947.
Bruggeman, T. J., 938.
Carlitz, L., 565, 701.
Catlin, P. A., 200.
Chandler, R. E., 826, 1074.
Chase, P. J., 1074.
Chernoff, P. R., 826, 835.
Croft, H. T., 188.
Daykin, D. E., 95, 835.
DeMeyer, Frank, 947.
Demir, Hüseyin, 300.
Djoković, D. Ž., 309.
Dotson, W. G., Jr., 309, 690.
Drobnies, S. I., 553.
Erdös, Paul., 200.
Farber, S. M., 1138.
Feigelstock, Steven, 414.
Florente, Pascual, 94.
Foschini, G. J., 309, 1074, 1152.
Garfunkel, Jack, 691.
Gelbart, Stephen, 309.
Gibson, P. M., 554.
Glenn, Ray, 423.
Goldberg, Michael, 825.
Golomb, S. W., 826.
Govindarajulu, Z., 835.
Guggenheimer, Henry, 94, 565.
Hahn, H. S., 82.
Hammer, Frederick, 1074.
Harris, M. E., 423.
Hirstein, J. J., 414.
Huckaba, J. A., 725.
Ivanoff, V. F., 83.
Jackman, Kenneth, 414.
János, Rosta, 414.
Just, Erwin, 82, 95, 200, 1152.
Kaplansky, Irving, 309, 947.
Kaucký, T., 301.
Kazdan, J. L., 413.
Kemperman, J. H. B., 1152.
Kestelman, H., 701.
Kirch, A. M., 83.
Klamkin, M. S., 1063, 1138, 1152.
Kornya, Peter, 82, 413, 825.
Kuller, R. G., 825.
Lardy, L. J., 200.
Lawrence, D. S., 94.
Lee, G. M., 300, 690.
Lehner, Joseph, 200.
Lepp, Basil, 1138.
Letac, Gerard, 565.
Levinger, B. W., 701.
Lindberg, J. A., Jr., 200.
Lupas, Alexandru, 423.
Luthar, R. S., 82, 188, 301, 554, 938.
Lutzer, D. L., 1074
Lyness, R. C., 1138.
Machover, Maurice, 199.
MacLane, G. R., 83.
Maurer, S. B., 1152.
Milner, E. C., 200.
Minsker, Steven, 835.
Moser, J. M., 1063.
Mullin, A. A., 1152.
Newman, D. J., 1063.
Nichols, J. C., 825.
Papp, F. J., 1063.
Payne, S. E., 565.
Perdew, P. M., 423.
Pollard, Harry, 310, 554, 937.
Quoniam, J. M., 1063.
Rabinowitz, Stanley, 187.
Rao, D. Rameswar, 301.
Rätz, Jurg, 948.
Redheffer, Raymond, 422.
Reiter, Harold, 947.
Sabharwal, C. L., 702.
Salz, N. P., 691.
Schaumberger, Norman, 691.
Segal, A. C., 1138.
Shafer, John, 95.
Shantaram, R., 83.
Sholander, Marlow, 188.
Siegel, Jerrold, 94.
Silverman, Stephan, 423.
Silverman, Stevan, 691.
Simanaitis, D. J., 938.
Singh, K. L., 309.
Sivaramakrishnan, R., 1062.
Slater, M., 414, 565.
Smith, Marion B., 938.
Spira, Robert, 702.
Stanley, Richard, 200.
Starke, E. P., 187.
Steffen, Klaus, 553.
Stolnicki, Michael, 413.
Struble, R. A., 1074.
Taussky, Olga, 948.
Ucoluk, Necdet, 1137.
Ungar, Peter, 423.
Vegh, Emanuel, 553.
Walkup, D. W., 1138.
Warren, Hugh, 835.
Warren, Michael, 188.
Wasan, Kamlesh, 701.
Washenberger, J. K., 835.
Waterhouse, W. C., 826.
Weingram, Stephen, 565.
Wets, R. J. B., 1138.
Wilansky, Albert, 566, 948.
Wulczyn, Gregory, 300.
Zacahriou, A., 187.
Zerger, M. J., 938.

PROBLEMS SOLVED

Abad, Victor, 697.
Adams, D. T., 572.
Aldridge, A. G., 97.
Andresen, Einar, 419.
Anon, 692.
Bager, Anders, 302, 940, 1064.
Bank, Steven, 310.
Bankoff, Leon, 85, 86, 87, 197, 941.
Barnebey, Merrill, 1157.
Bateman, P. T., 190.
Baum, J. M., 1150.
Berndt, Bruce, 102.
Berry, P. M., 92.
Bershad, M. A., 942.
Beumer, M. G., 193, 567, 568.
Bizley, M. T. L., 705.
Bloom, D. M., 417, 827.
Blundon, W. J., 84, 1072.
Bouwsma, W. D., 833, 1072.
Breusch, Robert, 567.
Buker, W. E., 938.
Campbell, Douglas, 1158.
Carlitz, L., 88, 98, 704, 1147.
Carlson, David, 314.
Chaney, R. W., 1080.
Chernoff, P. R., 97, 206, 702, 836, 839.
Clarke, L. E., 562.
Csontos, Peter, 205.
Cunningham, Frederic, Jr., 312.
Davies, R. O., 310, 1154.
Daykin, D. E., 699.
Del Norte, E. P., 953.
Demir, H., 564, 833.
Di Paola, Jane W., 313.
Djoković, D. Ž., 566, 1076.
Dotson, W. G., Jr., 195, 316.
Driscoll, R. J., 101, 950, 1073.
Driver, R. D., 948.
Eggleton, R. B., 92, 192.
Ehrlich, L. W., 206.
Elliott, Herbert, Jr., 562.
Engebretsen, G. E., 944.
Felsinger, Neal, 424, 554, 570, 701, 828.
Feng, Jinfu, 1070.
Flanders, Harley, 311, 561, 945.
Fox, William, 1141.
Frucht, Roberto, 1075, 1077.
Fuller, R. V., 314.
Fusaro, B. A., 427.
Gagola, S. M., Jr., 560.
Garness, Arne, 199.
Geisser, Seymour, 560.
Georgatos, J. F., 95.
Gillis, Joseph, 831.
Gilmer, Robert, 1155.
Gilmer, R. W., Jr., 203.
Gobel, F., 710.
Goldberg, Michael, 91, 421, 555, 559, 563, 694, 695, 939, 943, 1069, 1141.
Goldstein, Robert, 707.
Golightly, J. F., 414.
Greening, M. G., 307, 556, 698, 941, 1071, 1146.
Grosswald, Emil, 1145.
Hahn, H. S., 697.
Harborth, Heiko, 416, 568.
Hautus, M. L. J., 426.
Hayes, Allan, 310.
Hejhal, D. A., 97, 415, 422, 424, 558 840.
Henkel, Dennis, 710.
Hensley, D. A., 829.
Herrero, D. A., 316.
Hertz, Ellen, 836.
Heuer, Charles, 199.
Heuer, C. V., 703, 942.
Heuer, Gerald, 199.
Heuer, G. A., 100, 192, 703, 829, 949, 1158.
Hindmarsh, A. C., 696.
Hulen, Howard, 1141.
Jacobson, Bernard, 417.
Jeffords, Donald, 196.
Joglekar, S. D., 697.
Johnson, J. A., 203.
Jones, Eleanor, G., 308.
Jordan, J. H., 1072.
Juhlin, K. D., 302.
Just, Erwin, 90, 1070.
Kandall, Geoffrey, 419, 709.
Kelisky, R. P., 87.
Klamkin, M. S., 946.
Klarner, D. A., 426.
Kornya, Peter, 91.
Kuipers, L., 832.
Kuttler, J. R., 206.
Langford, E. S., 86.
Langford, Eric, 306.
Leech, John, 1066.
Legg, M. W., 189.
Lehner, Joseph, 691.
Leutert, W. W., 560.
Liebeck, Hans, 93.
Linder, J. B., 949.
Lindstrom, Bernt, 697.
Lossers, O. P., 838, 1073, 1077, 1155.

Lyness, R. C., 708.
MacLane, G. R., 1073.
Marcus, Dan, 202, 950, 1144.
Marsh, D. C. B., 303, 557.
Mattics, L. E., 940.
Mauldon, J. G., 427.
Mavinkurve, M. D., 569.
McMacken, Dennis, 307.
McWilliams, G. V., 828.
Meany, R. K., 569.
Merritt, Michael, 559.
Meter, R. G. Van, 305.
Meyer, P. R., 953.
Meyer, R. M., 700.
Miller, Kenneth, 304.
Miller, Norman, 555.
Monk, David, 1067.
Muskat, J. B., 83.
Neal, D. G., 699.
Neuts, M. F., 190.
Newman, D. J., 89.
Newman, Morris, 691.
Nikolai, P. J., 204.
Onstad, J. A., 832.
Page, D. N., 695.
Passell, Nicholas, 315.
Pierce, S. J., 97.
Pinzka, C. F., 194.
Prokop, F., 944.
Promislow, S. D., 951.
Quoniam, J. M., 943.
Reich, Simeon, 90, 189, 198, 418, 561, 1143, 1149, 1156.
Renteln, Michael von, 313.
Richman, Judith, 198, 830.
Riley, Charles, 313, 425, 837.
Rosenfeld, Azriel, 303.
Rubin, A. L., 316.
Sabharwal, C. L., 952.
Sasser, D. W., 948.
Schillo, Paul, 560.
Schmeichel, E. F., 1157.
Schmidt, Bernd, 571.
Schreiber, B. M., 205.
Schumm, G. F., 709.
Seligman, G. B., 201.
Sholander, Marlow, 311, 1139.
Singmaster, David, 826.
Sivaramakrishnan, R., 1149.
Speck, G. P., 944.
Spital, Sidney, 191.
Spitznagel, E. L., Jr., 827.
Stanley, Richard, 1153.
Starke, E. P., 1065.
Steffen, Klaus, 556, 571.
Steutel, F. W., 710.
Sugarman, Paul, 304.
Sumner, D. P., 315.
Tang, F. C. Y., 1076.
Thompson, R. C., 205, 306.
Thompson, R. J., 948.
Torchinsky, Alberto, 1142.
Trost, E. W., 98, 1151.
Underwood, R. S., 562.
Ungar, Peter, 836.
Van Lint, J. H., 426, 567, 1076.
Vendeghen, A., 85.
Venkataraman, C. S., 1149.
Vogel, Julius, 561.
Vogt, R. L., 423.
Walker, A. W., 195, 698.
Ward, L. E., Sr., 699.
Warner, S. L., 203.
Wells, Linda, 101.
Wernick, William, 1071.
Wexler, Charles, 1140.
Wild, W. G., 945, 1140.
Williams, J. P., 1153.
Zeitlin, David, 420.

SOLUTIONS

Numbers in **boldface** type refer to problems, those in lightface, to pages.

E-1891, 826. **E-2018**, 827. **E-2022**, 827. **E-2032**, 691. **E-2033**, 83. **E-2034**, 84. **E-2035**, 86. **E-2036**, 86. **E-2037**, 86. **E-2038**, 87. **E-2039**, 87. **E-2040**, 88. **E-2041**, 89. **E-2042**, 90. **E-2043**, 90. **E-2044**, 91. **E-2045**, 91. **E-2046**, 92. **E-2047**, 93. **E-2048**, 189. **E-2049**, 189. **E-2050**, 190. **E-2051**, 190. **E-2052**, 191. **E-2053**, 192. **E-2054**, 192. **E-2055**, 194. **E-2056**, 195. **E-2057**, 195. **E-2058**, 196. **E-2059**, 197. **E-2060**, 198. **E-2061**, 198. **E-2062**, 199. **E-2063**, 302. **E-2064**, 692. **E-2065**, 302. **E-2066**, 303. **E-2067**, 303. **E-2068**, 304. **E-2069**, 304. **E-2070**, 305. **E-2071**, 306. **E-2072**, 306. **E-2073**, 307. **E-2074**, 307. **E-2075**, 308. **E-2076**, 414. **E-2077**, 415. **E-2078**, 416. **E-2079**, 417. **E-2080**, 417. **E-2081**, 418. **E-2082**, 419. **E-2083**, 419. **E-2084**, 420. **E-2085**, 421. **E-2086**, 422. **E-2087**, 554. **E-2088**, 554. **E-2089**, 555. **E-2090**, 556. **E-2091**, 556. **E-2092**, 557. **E-2093**, 558. **E-2094**, 559. **E-2095**, 559. **E-2096**, 560. **E-2097**, 561. **E-2098**, 562. **E-2099**, 562. **E-2100**, 563. **E-2101**, 564. **E-2102**, 694. **E-2103**, 695. **E-2104**, 695. **E-2105**, 696. **E-2106**, 697. **E-2107**, 697. **E-2108**, 828. **E-2109**, 698. **E-2110**, 698. **E-2111**, 699. **E-2112**, 699. **E-2113**, 700. **E-2114**, 701. **E-2115**, 828. **E-2116**, 829. **E-2117**, 829. **E-2118**, 830. **E-2119**, 831. **E-2120**, 832. **E-2121**, 832. **E-2122**, 833. **E-2123**, 833. **E-2124**, 938. **E-2125**, 939. **E-2126**, 940. **E-2127**, 940. **E-2128**, 941. **E-2129**, 942. **E-2130**, 943. **E-2131**, 944. **E-2132**, 944. **E-2134**, 945. **E-2135**, 945. **E-2136**, 946. **E-2137**, 1064. **E-2138**, 1065, **E-2139**, 1066. **E-2140**, 1067. **E-2141**, 1069. **E-2142**, 1070. **E-2144**, 1070. **E-2145**, 1071. **E-2146**, 1072. **E-2147**, 1072. **E-2148**, 1073. **E-2149**, 1139. **E-2150**, 1139. **E-2151**, 1140. **E-2152**, 1140. **E-2153**, 1141. **E-2154**, 1141. **E-2155**, 1142. **E-2156**, 1143. **E-2157**, 1144. **E-2158**, 1145. **E-2160**, 1146. **E-2161**, 1147. **E-2162**, 1149. **E-2163**, 1150. **E-2164**, 1151.

5183, 566. **5415**, 948. **5526**, 310. **5527**, 311. **5533**, 95. **5550**, 97. **5557**, 97. **5560**, 201. **5561**, 97. **5562**, 98. **5563**, 98. **5564**, 100. **5565**, 101. **5566**, 101. **5566**, 101. **5567**, 312. **5568**, 101. **5570**, 202. **5571**, 203. **5572**, 203. **5573**, 203. **5574**, 204. **5576**, 204. **5577**, 205. **5578**, 206. **5579**, 206. **5581**, 313. **5582**, 314. **5583**, 314. **5585**, 315. **5586**, 316. **5587**, 316. **5588**, 316. **5590**, 423. **5591**, 424. **5592**, 424. **5593**, 702. **5594**, 425. **5595**, 425. **5596**, 426. **5597**, 426. **5598**, 427. **5600**, 567. **5601**, 567. **5602**, 569. **5604**, 569. **5605**, 570. **5607**, 571. **5609**, 571. **5610**, 703. **5611**, 704. **5612**, 705. **5613**, 707. **5614**, 708. **5615**, 709. **5616**, 709. **5617**, 710. **5618**, 710. **5620**, 836. **5621**, 836. **5622**, 836. **5623**, 837. **5624**, 838. **5627**, 839. **5628**, 840. **5629**, 949. **5630**, 949. **5631**, 950. **5632**, 950. **5633**, 951. **5634**, 952. **5635**, 953. **5636**, 1075. **5637**, 953. **5638**, 1076. **5639**, 1076. **5640**, 1077. **5641**, 1153. **5642**, 1153. **5645**, 1154. **5646**, 1155. **5647**, 1155. **5648**, 1156. **5649**, 1157. **5651**, 1157. **5652**, 1158. **5655**, 1158.

REVIEWS

Abbreviations: (TR)—Telegraphic Review; (NP)—Notable Paper.
Names of authors are in ordinary type, those of reviewers in capitals and small capitals.

Abbott, J. C. *Sets, Lattices and Boolean Algebras*, (TR), 1092.

Abu-Shumays, Ibrahim. See Bellman, Richard.

Albert, A. A. and Sandler, Reuben. *An Introduction to Finite Projective Planes*, (TR), 111.

Albrecht, W. A., Jr. See Smith, A. H.

——— and Mueller, F. J. *Contemporary Algebra and Trigonometry*, (TR), 975.

Alder, H. L. and Roessler, E. B. *Introduction to Probability and Statistics*, (TR), 113.

Alexandroff, P. S., Markuschewitsch, A. I. and Chintschin, A. J. (editors). *Enzyklopädie der Elementarmathematik*, (TR), 111.

Alexsandrov, A. D., Kolmogorov, A. N. and Lavrent'ev, M. A. (editors). *Mathematics: Its Content, Methods, and Meaning*, (TR), 969.

Alger, P. L. *Mathematics for Science and Engineering*, 2nd ed., (TR), 965.

Allen, R. G. D. *Macro-Economic Theory. A Mathematical Treatment*, (TR), 215.

American Mathematical Society Translations. Series 2. Vol. 70 AMS, (TR), 111.

Ames, D. B. *An Introduction to Abstract Algebra*, (TR), 963.

Anders, E. B. *Trigonometry*, (TR), 975.

Annus Mirabilis of Sir Isaac Newton. Tricentennial Celebration, (TR), 578.

Arbib, M. A. See Kalman, R. E.

Arnold, V. I. and Avez, A. *Ergodic Problems of Classical Mechanics*, (TR), 720.

Arsenin, V. Y. *Basic Equations and Special Functions of Mathematical Physics*, (TR), 973.

Atiyah, M. F. and Macdonald, I. G. *Introduction to Commutative Algebra*, (TR), 963.

Auslander, Louis. *Differential Geometry*, L. N. PATTERSON, 213–214.

Avez, A. See Arnold, V. I.

Axiome de Paralleles de Euclides a Hilbert. Un Probleme Cardinal in le Evolution del Geometrie. (Interlingue) (TR), 1172.

Babbage, Charles. *Passage from the Life of a Philosopher*, (TR), 325.

Bachi, Roberto. *Graphical Rational Patterns. A New Approach to Graphical Presentation of Statistics*, (TR), 113.

Bachmann, Paul. *Niedere Zahlentheorie*, (TR), 1096.

Balfour, A. and McTernan, A. J. *The Numerical Solution of Equations*, (TR), 110.

Banks, J. H. *Elements of Mathematics*, (TR), 434.

Barker, G. P. See Schneider, Hans.

Barnett, I. A. *Elements of Number Theory*, (TR), 574.

Barnett, R. A. *Elementary Algebra, Structure and Use*, (TR), 220.

Baron, Margaret E. *The Origins of the Infinitesimal Calculus*, (TR), 971.

Barry, E. H. *Introduction to Geometrical Transformations*, (TR), 1092.

Bashaw, W. L. *Mathematics for Statistics*, (TR), 1096.

Bartle, R. G. and Tulcea, C. I. *An Introduction to Calculus*, (TR), 432.

Batchelder, P. M. *An Introduction to Linear Difference Equations*, (TR), 431.

Batchelor, G. K. *An Introduction to Fluid Dynamics*, K. B. RANGER, 957.

Baumslag, B. and Chandler, B. *Theory and Problems of Group Theory*, J. M. LAIBLE, 712–713.

Beale, E. M. L. *Mathematical Programming in Practice*, 722.

Beard, Ruth M. *An Outline of Piaget's Developmental Psychology for Students and Teachers*, (TR), 968.

Beck, Anatole, Bleicher, M. N. and Crowe, D. W. *Excursions into Mathematics*, (TR), 858.

Beckenbach, E. G. and Drooyan, Irving. *Modern College Algebra and Trigonometry*, (TR), 220.

——— and ———. *College Algebra*, 2nd ed., (TR), 220.

Beckmann, M. J. *Dynamic Programming of Economic Decisions*, (TR), 322.

Beckmann, Petr. *Elements of Applied Probability Theory*, (TR), 113.

Bedient, P. E. See Rainville, E. D.

Belevitch, V. *Classical Network Theory*, (TR), 322.

Beljajew, J. K. See Gnedenko, B. W.

Bell, J. L. and Slomson, A. B. *Models and*

Ultraproducts: An Introduction, (TR), 1091.
Bellamy, D. P. See Fitzgerald, W. M.
Bellman, Richard. *Modern Elementary Differential Equations*, JUDITH M. ELKINS, 102–103.
———. *Some Vistas of Modern Mathematics. Dynamic Programming, Invariant Imbedding, and the Mathematical Biosciences*, R. KALABA, 1159, and (TR), 218.
———, Birkoff, Garrett, and Abu-Shumays, Ibrahim. *Transport Theory*, (TR), 1095.
Belyayev, Y. K. See Gnedenko, B. V.
Benson, R. V. *Euclidean Geometry and Convexity*, N. W. JOHNSON, 1165–1166.
Bergman, Stefan. *Integral Operators in the Theory of Linear Partial Differential Equations*, (TR), 1090.
Bergstrom, A. R. *Selected Economic Models and their Analysis*, (TR), 109.
Berlinghoff, W. P. *Mathematics the Art of Reason*, (TR), 577.
Berman, S. M. *The Elements of Probability*, E. M. BOLGER, 1170, and (TR), 973.
Bernays, P. See Hilbert, D.
Bers, Lipman. *Calculus*, (TR), 855.
Bhenke, E. H., *et al. Die Neugestaltung des Mathematikunterrichtes an den Hoeheren Schulen*, (TR), 1091.
Biggs, Edith E. and MacLean, J. R. *Freedom to Learn. An Active Learning Approach to Mathematics*, (TR), 968.
Billingsley, Patrick. *Convergence of Probability Measures*, (TR), 326.
Birkhoff, Garrett. See Bellman, Richard.
Bishop, R. L. and Goldberg, S. I. *Tensor Analysis of Manifolds*, BARRETT O'NEILL, 956–957.
Bitsadze, A. V. *Boundary Value Problems for Second Order Elliptic Equations*, (TR), 107.
Bittinger, M. L. See Keedy, M. L.
Bjerrum, C. A. (coord.). *Forecast 1968–2000 of Computer Developments and Applications*, (TR), 1090.
Blackwell, David. *Basic Statistics*, (TR), 977.
Blakers, A. L. *Mathematical Concepts of Elementary Measurement*, (TR), 1171.
Blattner, J. W. *Projective Plane Geometry*, BERT MENDELSON, 713–714, and (TR), 324.
Bleicher, M. N. See Beck, Anatole.
Bobrow, D. G. (editor). *Symbol Manipulation Languages and Techniques*, (TR), 1090.
Bommer, C. M. and Symonds, D. A. *Skeletal Structures. Matrix Methods of Linear Structural Analysis using Influence Coefficients*, (TR), 969.
Books by Photocopy, 114.
Borsky, V. and Matyas, J. *Computation by Electronic Analogue Computers*, (TR), 722.
Bourbaki, Nicolas. *Elements of Mathematics. Theory of Sets*, (TR), 435.
———. *Éléments d'histoire des Mathématiques*, (TR), 1094.
Boyce, W. E. and DiPrima, R. C. *Elementary Differential Equations and Boundary Value Problems*, 2nd ed., (TR), 967.
Boyer, C. B. *A History of Mathematics*, P. S. JONES, 1163–1165, and (TR), 113.
Bracken, Jerome and McCormick, G. P. *Selected Applications of Nonlinear Programming*, (TR), 216.
Bradley, J. V. *Distribution-Free Statistical Tests*, (TR), 326.
Brand, Louis. *Differential and Difference Equations*, ALAN FELDSTEIN, 1166–1167.
Branges, Louis de. *Hilbert Spaces of Entire Functions*, (TR), 107.
Brauer, Fred and Nohel, J. A. *Problems and Solutions in Ordinary Differential Equations*, (TR), 216.
Brauer, Richard and Sah, Chih-Han. *Theory of Finite Groups. A Symposium*, (TR), 971.
Breiman, Leo. *Probability and Stochastic Processes: With a View Toward Applications*, (TR), 974.
Breusch, Robert. *Introduction to Calculus and Analytic Geometry*, Vol. 2, (TR), 966.
——— and Ogilvy, C. S. *Calculus and Analytic Geometry with Applications*, (TR), 966.
Brill, E. J. *Pierre Sergescu, 1893–1954*, (TR), 1096.
Brinker, O. L. See Plachy, J. M.
Britannica Book of the Year, 1969, (TR), 970.
Brocard, H. and Lemoyne, T. *Courbes Géometriques Remarquables*, (TR), 578.
Brody, B. A. and Capaldi, Nicholas (editors). *Science: Men, Methods, Goals. A Reader: Methods of Physical Science*, (TR), 1094.
Brown, Ronald. *Elements of Modern Topology*, J. D. BAUM, 572–573, and (TR), 112.
Bruckheimer, M., Gowar, N. W. and Scraton, R. E. *Mathematics for Technology. A New Approach*, D. W. WESTERN, 1167–1168, and (TR), 857–858.
Brumfiel, C. F. and Krause, E. F. *Elementary Mathematics for Teachers*, (TR), 858.

Brunes, Tons. *The Secrets of Ancient Geometry—and its use*, (TR), 219.
Bryant, S. J., Nower, Leon and Saltz, Daniel. *College Arithmetic*, (TR), 975.
———, ———, and ———. *Elementary Algebra*, (TR), 975.
———, ———, and ———. *Intermediate Algebra*, (TR), 975.
Bucholz, Herbert. *The Confluent Hypergeometric Function, with Special Emphasis on its Applications*, (TR), 1089.
Bucy, R. S. and Joseph, P. D. *Filtering for Stochastic Processes with Applications to Guidance*, (TR), 575.
Budden, F. J. *Complex Numbers and their Applications*, (TR), 855.
Bulloff, J. K., Holyoke, T. C. and Hahn, S. W. *Foundations of Mathematics. Symposium Papers Commemorating the Sixtieth Birthday of Kurt Godel*, (TR), 1092.
Bumcrot, R. J. *Modern Projective Geometry*, JOSEPHINE H. CHANLER, 1168–1169, and (TR), 860.
Burrill, C. W. *Foundations of Real Numbers*, GERALDINE A. COON, 957.
Buxton, J. N. (editor). *Simulation Programming Languages*, (TR), 1171.
Cairns, S. S. See Morse, Marston.
Calderbank, V. J. *A Course on Programming in FORTRAN IV*, (TR), 1172.
Callahan, L. G. See Glennon, V. J.
Campbell, H. G. *Matrices with Applications*, (TR), 107.
Capaldi, Nicholas. See Brody, B. A.
Cardano, Girolamo. *The Great Art of the Rules of Algebra*, (TR), 725.
Carrier, G. F. and Pearson, C. C. *Ordinary Differential Equations*, (TR), 216.
Carroll, R. W. *Abstract Methods in Partial Differential Equations*, (TR), 968.
Carvallo, Michel. *Logique à trois valeurs, Logique à seuil*, (TR), 726.
Cedar, J. G. and Outcalt, D. L. *A Short Course in Calculus*, (TR), 217.
Chambers, L. G. *A Course in Vector Analysis*, (TR), 979.
Chance, W. A. *Statistical Methods for Decision Making*, (TR), 977.
Chandler, B. See Baumslag, B.
Chandrasekharan, K. Hermann Weyl. *Gesammelte Abhandlungen*, (TR), 325.
Chao, L. L. *Statistics: Methods and Analyses*, (TR), 977.
Chao, Y. R. *Language and Symbolic Systems*, B. BRAINERD, 850–851.
Charles, B. (editor). *Studies on Abelian Groups*, (TR), 963.
Chern, S. S. See Korevaar, Jacob.
Chernov, L. A. *Wave Propagation in a Random Medium*, (TR), 216.
Chintschin, A. J. See Alexandroff, P. S.
Choquet, Gustave. *L'enseignement de la Géométrie*, G. N. WOLLAN, 103–104.
———. *Geometry in a Modern Setting*, (TR), 970.
Churchhouse, R. F. and Herz, J.-C. (editors). *Computers in Mathematical Research*, (TR), 1090.
Cissell, Helen. See Cissell, Robert.
Cissell, Robert and Cissell, Helen. *Mathematics of Finance*, (TR), 432.
Clagett, Marshall (editor). *Nicole Oresme and the Medieval Geometry of Qualities and Motions*, (TR), 578.
Cole, J. D. *Perturbation Methods in Applied Mathematics*, (TR), 109.
Cole, R. H. *Theory of Ordinary Differential Equations*, (TR), 574.
Collected Papers of G. H. Hardy, Including Joint Papers with J. E. Littlewood and others, London Math. Soc., Vol. 11, (TR), 972.
Collins, N. L. and Michie, D. *Machine Intelligence*, (TR), 723.
Computer-Assisted Instruction and the Teaching of Mathematics. Proceedings of a National Conference on Computer-Assisted Instruction Conducted at Pennsylvania State University, Sept. 24–26, 1968, (TR), 968–969.
Computer Facilities for Mathematics Instruction, NCTM, R. V. ANDREE, 849, (TR), 111.
Contents of Contemporary Mathematical Journals, AMS, (TR), 855.
Conway, Donald. See Lovaglia, Florence M.
Cooley, H. R. and Wahlert, H. E. *Introduction to Mathematics*, (TR), 218.
Coolidge, J. L. *A History of Conic Sections and Quadric Surfaces*, (TR), 325.
Cooper, B. E. *Statistics for Experimentalists*, (TR), 977.
Corduneanu, C. *Almost Periodic Functions*, (TR), 719.
Courant, R. See Hurwitz, A.
Cournot, Augustin. *Recherches sur les Principes Mathématiques de la Théorie des Richesses*, (TR), 219.

Cournot, Augustin. *Exposition de la Théorie des Chances et des Probabilités*, (TR), 219.
Craig, R. T. *Modern Principles of Mathematics*, (TR), 859.
Crooks, T. C. and Hancock, H. L. *Basic Technical Mathematics*, (TR), 975.
Crowdis, D. G. and Wheeler, B. W. *Introduction to Mathematical Ideas*, (TR), 724.
Crowe, D. W. See Beck, Anatole.
Crowe, M. J. *A History of Vector Analysis: The Evolution of the Idea of System*, STANLEY GOLDBERG, 1086–1088.
Crowell, R. H. See Williamson, Richard.
Cullen, Helen F. *Introduction to General Topology*, STEVE ARMENTROUT, 841.
Curtis, C. W. *Linear Algebra: An Introductory Approach*, 2nd ed., (TR), 963.
Curtiss, D. R. *Analytic Functions of a Complex Variable*, (TR), 431.
Danese, A. E. *Advanced Calculus. An Introduction to Applied Mathematics*, Vol. 2, R. M. BULLOCK, 104–105.
Daniels, G. H. *American Science in the Age of Jackson*, (TR), 325.
Dantzig, G. B. and Veinott, A. F. *Mathematics of the Decision Sciences*, (TR), 721.
——— and ———. *Mathematics of the Decision Sciences*, Pt. 2, (TR), 965.
Dauns, John and Hofmann, K. H. *Representation of Rings by Sections. Memoirs of the AMS*, No. 83, (TR), 853.
David, F. N., *et al. Normal Centroids, Medians, and Scores for Ordinal Data*, (TR), 435.
Davis, E. A. and Pedersen, J. J. *Essentials of Trigonometry*, (TR), 975.
Davis, L. H. See Maddox, T. K.
Debus, A. G. (editor). *World Who's Who in Science*, (TR), 578.
Dejon, Bruno and Henrici, Peter (editors). *Constructive Aspects of the Fundamental Theorem of Algebra*, (TR), 1172.
Delta. Official Organ of the Waukesha Mathematics Society, (TR), 723.
Dembowski, P. *Finite Geometries*, (TR), 112.
Demidovich, B. (editor). *Problems in Mathematical Analysis*, (TR), 966.
Demonstration, Verification, Justification, (TR), 1092.
DeMorgan, Augustus. *Newton, His Friend and His Niece*, (TR), 325.
Dennemeyer, Rene. *Introduction to Partial Differential Equations and Boundary Value Problems*, SHERMAN LOWELL, 207–208.
De Pillis, John. *Linear Algebra*, (TR), 1904.
Depree, J. D. and Oehring, C. C. *Elements of Complex Analysis*, (TR), 967.
Dettman, J. W. *Mathematical Methods in Physics and Engineering*, (TR), 855.
Deutsch, Ralph. *System Analysis Techniques*, (TR), 973.
Devinatz, Allen. *Advanced Calculus*, (TR), 217.
DeWitt, C. M. and Wheeler, J. A. *Battelle Rencontres. 1967 Lectures in Mathematics and Physics*, (TR), 721.
Dialectica. Enquiry and International Colloquium on the Reform and Coordination of the Teaching of Mathematics and Physics, (NP), 114.
Die Neugestaltung des Mathematikunterrichtes an den Hoeheren Schulen, (TR), 1091.
Dieudonné, Jean. *Algèbre linéaire et géométrie élémentaire*, G. N. WOLLAN, 103–104.
DiPrima, R. C. See Boyce, W. E.
Dixon, W. J. and Massey, F. J. *Introduction to Statistical Analysis*, (TR), 977.
Dodge, C. W. *Sets, Logic and Numbers*, (TR), 859.
Donnellan, Thomas. *Lattice Theory*, D. R. BROWN, 1169–1170, and (TR), 106.
Douady, A., Grauert, H., Malgrange, B., *et al. Topics in Several Complex Variables*, (TR), 856.
Dowdy, S. M. See Rainich, G. Y.
Drabkin, I. E. See Drake, Stillman.
Drake, Stillman, Drabkin, I. E. (trans.). *Mechanics in Sixteenth-Century Italy. Selections from Tartaglia, Benedetti, Guido Ubaldo, and Galileo*, (TR), 1094.
Drooyan, Irving. See Beckenbach, E. F.
Dubisch, Roy and Howes, V. E. *Intermediate Algebra*, (TR), 727.
Duncan, J. *The Elements of Complex Analysis*, (TR), 321.
Duris, C. S. See Moursund, D. G.
Durst, L. K. *The Grammar of Mathematics*, (TR), 972.
Dynkin, E. B. and Juschkewitsch, A. A. *Saetze und Aufgaben ueber Markoffsche Prozesse*, (TR), 1095.
Dynkin, E. B. and Uspenski, W. A. *Mehrfarbenprobleme*, (TR), 112.
Eames, W. *The Elementary Theory of Numbers, Polynomials, and Rational Functions*, (TR), 106.
Eckhart, Ludwig. *Four-Dimensional Space*, (TR), 970.

Edwards, E. B. *Pattern and Design with Dynamic Symmetry*, (TR), 1089.
Edwards, H. M. *Advanced Calculus*, (TR), 964.
Ehrenpreis, Leon. See Korevaar, Jacob.
Eisen, Martin. *Introduction to Mathematical Probability Theory*, (TR), 974.
Elderton, W. P. and Johnson, N. L. *Systems of Frequency Curves*, (TR), 977.
Elmore, M. A. See Lovaglia, Florence M.
Engelking, R. *Outline of General Topology*, (TR), 324.
Entelek, Inc. *Computer-Assisted Instruction Guide*, (TR), 110.
Epstein, R. A. *The Theory of Gambling and Statistical Logic*, F. SPITZER, 319.
Evans, C. R. and Robertson, A. D. J. (editors). *Cybernetics. Key Papers*, (TR), 325.
Eves, Howard. *An Introduction to the History of Mathematics*, 3rd ed., (TR), 971.
Ewens, W. J. *Population Genetics*, (TR), 970.
Ewing, G. M. *Calculus of Variations with Applications*, (TR), 979.
Falb, P. L. See Kalman, R. E.
Federer, Herbert. *Geometric Measure Theory*, (TR), 964.
Feys, Robert and Fitch, F. B. *Dictionary of Symbols of Mathematical Logic*, (TR), 1092.
Fiacco, A. V. and McCormick, G. P. *Nonlinear Programming. Sequential Unconstrained Minimization Techniques*, (TR), 575.
Fike, C. T. *Computer Evaluation of Mathematical Functions*, (TR), 433.
Finerman, Aaron (editor). *University Education in Computing Science*, (TR), 576.
First Employment of Ph.D.'s in the Mathematical Sciences: 1966–67, 1967–68, 1968–69, (TR) 970.
Fitch, F. B. See Feys, Robert.
Fitzgerald, W. M., Bellamy, D. P., *et al. Laboratory Manual for Elementary Mathematics*, (TR), 968.
Fleming, F. J. *Algebra*, (TR), 975.
Flett, T. M. *Mathematical Analysis*, (TR), 217.
Formalized Recursive Functionals and Formalized Realizability. Memoirs AMS 89, (TR), 969.
Forray, M. J. *Variational Calculus in Science and Engineering*, (TR), 575.
Fortet, R. See Lapierre, B.
Fox, L. and Mayers, D. F. *Computing Methods for Scientists and Engineers*, R. M. BAER, 1163, and (TR), 323.
Fox, L. and Parker, I. B. *Chebyshev Polynomials in Numerical Analysis*, (TR), 107.
Foxley, Eric and Neave, H. R. *A First Course in ALGOL 60*, (TR), 433.
Fraleigh, J. B. *A First Course in Abstract Algebra*, K. P. BOGART, 842–843.
———. *A First Course in Abstract Algebra*, GEORGE GRATZER, 843–844.
———. *Mainstreams of Mathematics*, (TR), 724.
———. *Probability and Calculus: A Brief Introduction*, (TR), 859.
Frame, Robert. See Jedamus, Paul.
Franz, Wolfgang. *Algebraic Topology*, (TR), 112.
Fraser, D. A. S. *The Structure of Inference*, (TR), 113.
Fremont, Herbert. *How to Teach Mathematics in Secondary Schools*, (TR), 857.
Freudenthal, H. (editor). *Educational Studies in Mathematics*, (TR), 110.
Freund, J. A. *College Mathematics with Business Applications*, (TR), 855.
Fricke, Robert, Noether, Emmy, and Ore, Oystein (editors). *Richard Dedekind. Gesammelte mathematische Werke*, (TR), 1096.
Friedberg, Richard. *An Adventurer's Guide to Number Theory*, (TR), 1095.
Friedman, Avner. *Partial Differential Equations*, (TR), 1171.
Fujii, J. N. *Geometry and its Methods*, (TR), 975.
Fuss, P. H. *Correspondance Mathématique et Physique de Quelques Célèbres Géomètres du XVIII-ème Siècle Précédée d'une Notice sur les Travaux de Leonard Euler, Tant imprimés qu'inédits et Publiée Sous les Auspices de l'Académie Impériale des Sciences de Saint Pétersbourg*, (TR), 219.
Gallager, R. G. *Information Theory and Reliable Communication*, (TR), 575.
Gambill, Robert. See Shanks, M. E.
Gamkrelidze, R. V. *Progress in Mathematics, Vol. 3*, (TR), 1095.
Gangolli, R. A. and Ylvisaker, Donald. *Discrete Probability*, B. W. LINDGREN, 851.
Gani, J. (editor). *Mathematical Spectrum. A Magazine of Contemporary Mathematics*, (TR), 433.
Gans, David. *Transformations and Geometries*, (TR), 860.
Gardner, Martin. *Logic Machines, Diagrams and Boolean Algebra*, (TR), 323.

Gavalas, G. R. *Nonlinear Differential Equations of Chemically Reacting Systems*, (TR), 432.

Gechtman, Murray and Hardesty, James. *Arithmetic Concepts and Skills*, (TR), 220.

Geher, L. See Szasz, G.

Gelbaum, B. R. and March, J. G. *Mathematics for the Social and Behavioral Sciences. Probability, Calculus and Statistics*, (TR), 976.

Gelfand, I. M., Glagoleva, E. G. and Shnol, E. E. *Functions and Graphs*, (TR), 971.

———, Graev, M. I. and Pyatetskii-Shapiro, I. I. *Representation Theory and Automorphic Function*, (TR), 719.

——— and Shilov, G. E. *Generalized Functions. Volume 2. Spaces of Fundamental and Generalized Functions*, (TR), 321.

Gelfand, S. I., Gerver, M. L., Kirillov, A. A., *et al.*, *Sequences, Combinations, Limits*, (TR), 1095.

Gemignani, M. C. *Elementary Topology*, DAGMAR HENNEY, 105.

Gerstenhaber, Murray, Leigh, E. R., Lewontin, R. C., *et al. Some Mathematical Problems in Biology*, (TR), 966.

Gerver, M. L. See Gelfand, S. I.

Gilbert, R. P. *Function Theoretic Methods in Partial Differential Equations*, (TR), 853.

Glagoleva, E. G. See Gelfand, I. M.

Gleason, A. M. *Fundamentals of Abstract Analysis*, L. T. GARDNER, 1080–1082.

Glennon, V. J. and Callahan, L. G. *Elementary School Mathematics. A Guide to Current Research*, (TR), 1091.

Gmurman, V. E. *Fundamentals of Probability Theory and Mathematical Statistics*, (TR), 327.

Gnedenko, B. V., Belyayev, Y. K. and Solovyev, A. D. *Mathematical Methods of Reliability Theory*, (TR), 974.

Gnedenko, B. W., Beljajew, J. K. and Solowjew, A. D. *Mathematische Methoden der Zuverlässigkeitstheorie, I*, (TR), 322.

Gnedenko, B. V. and Kovalenko, I. N. *Introduction to Queueing Theory*, (TR), 965.

Goals for the Correlation of Elementary Science and Mathematics. The Report of the Cambridge Conference on the Correlation of Science and Mathematics in the Schools, (TR), 857.

Godement, Roger. *Algebra*, (TR), 574.

Godwin, H. J. See Weston, J. D.

Goldberg, S. I. See Bishop, R. L.

Goldberger, A. S. *Topics in Regression Analysis*, (TR), 113.

Golightly, J. F. *Precalculus Mathematics. Algebra and Trigonometry*, (TR), 220.

Golos, E. B. *Foundations of Euclidean and Non-Euclidean Geometry*, HANS ZASSENHAUS, 318–319.

Golovkin, K. K. *Four Papers on Functions of Real Variables*, (TR), 1089.

Good, I. J. *The Estimation of Probabilities; an Essay on Modern Bayesian Methods*, (TR), 727.

Goodman, A. W. *Analytic Geometry and the Calculus*, 2nd ed., (TR), 966.

Gowar, N. W. See Bruckheimer, M.

Grace, E. E. (editor). *Topology Conference, Arizona State University, 1967*, (TR), 725.

Graev, M. I. See Gel'fand, I. M.

Graham, L. A. *The Surprise Attack in Mathematical Problems*, (TR), 434.

Gratzer, George. *Universal Algebra*, (TR), 963.

Grauert, H. See Douady, A.

Greenberg, M. J. *Lectures on Forms in Many Variables*, (TR), 853.

Greenspan, D. *Lectures on the Numerical Solution of Linear, Singular, and Nonlinear Differential Equations*, (TR), 575.

Greenspan, H. P. *The Theory of Rotating Fluids*, (TR), 109.

Greenwood, Thomas. See Maziarz, E. A.

Gretsky, N. E. *Representation Theorems on Banach Function Spaces*, (TR), 858.

Greub, W. H. *Multilinear Algebra*, MARVIN MARCUS, 954–955.

Greville, T. N. E. (editor). *Theory and Applications of Spline Functions*, (TR), 853–854.

Grothendieck, A. *Éléments de Géométrie Algébrique*, (TR), 434.

Groza, Vivian Shaw. *A Survey of Mathematics: Elementary Concepts and their Historical Development*, C. B. BOYER, 1083–1084, and (TR), 218.

Grunbaum, Adolf. *Geometry and Chronometry in Philosophical Perspective*, (TR), 112.

Gue, R. L. and Thomas, M. E. *Mathematical Methods in Operations Research*, (TR), 109.

Guenther, William. *Concepts of Probability*, (TR), 114.

Gunther, R. T. *Early Science in Oxford*, (TR), 219.

Haber, Audrey and Runyon, R. P. *General Statistics*, (TR), 977.

Hahn, S. W. See Buloff, J. K.

Haimo, Deborah T. See Proc. Conf. So. Illinois University.
Halberg, C. J. A., Jr. See Taylor, A. E.
Hall, Marshall, Jr. *Combinatorial Theory*, W. G. BROWN, 851–852.
Hambidge, Jay. *The Elements of Dynamic Symmetry*, (TR), 1089.
Hammer, P. L. *Boolean Methods in Operations Research and Related Areas*, (TR), 973.
Hamming, R. W. *Calculus and the Computer Revolution*, (TR), 576.
Hancock, H. L. See Crooks, T. C.
Harary, Frank. *Graph Theory*, (TR), 1093.
Hardesty, James. See Gechtman, Murray.
Hardiman, N. J. (editor). *Exploring University Mathematics 3*, (TR), 1093.
Harris, Zellig. *Mathematical Structures of Language*, (TR), 322.
Hart, W. L. *Essentials of Algebra*, (TR), 727.
Hatcher, W. S. *Foundations of Mathematics*, (TR), 326.
Hauck, William. *Trigonometry Review Manual*, (TR), 220.
Hausner, Melvin and Schwartz, J. T. *Lie Groups. Lie Algebra*, (TR), 574.
Hawkins, F. M. and Hawkins, J. Q. *Complex Numbers and Elementary Complex Functions*, (TR), 967.
Hawkins, J. Q. See Hawkins, F. M.
Hayden, Seymour and Kennison, J. F. *Zermelo-Fraenkel Set Theory*, (TR), 726.
Hays, D. G. *Introduction to Computational Linguistics*, (TR), 723.
Heesch, Heinrich. *Reguläres Parkettierungsproblem*, H. S. M. COXETER, 1085–1086, and (TR), 112.
Helmberg, Gilbert. *Introduction to Spectral Theory in Hilbert Space*, (TR), 964.
Henderson, K. B. *Teaching Secondary School Mathematics*, (TR), 1091.
Henrici, Peter. See Dejon, Bruno.
Henry, N. W. See Lazarsfeld, P. F.
Henstock, Ralph. *Linear Analysis*, (TR), 575.
Hermann, R. *Differential Geometry and the Calculus of Variations*, (TR), 324.
Hertz, D. B. and Melese, Jacques (editors). *The Proceedings of the Fourth International Conference on Operational Research*, (TR), 973.
Herz, J.-C. See Churchhouse, R. F.
Hickey, A. E. (editor). *Computer-Assisted Instructions*, (TR), 577.
Higman, Bryan. *A Comparative Study of Programming Languages*, T. E. CHEATHAM, JR., 958.
Hilbert, D. and Bernays, P. *Grundlagen der Mathematik I*, (TR), 727.
Hille, Einar. *Analysis*, Vol. 2, JUDITH MOLINAR ELKINS, 319–320.
———. *Lectures on Ordinary Differential Equations*, (TR), 856.
———. and Salas, S. L. *First-Year Calculus*, (TR), 217.
Hilton, P. J. (editor). *Studies in Modern Topology*, KY FAN, 208.
Hochschild, G. *A Second Introduction to Analytic Geometry*, C. B. ALLENDOERFER, 318.
Hoffer, A. R. and Musser, G. L. *Elementary Algebra*, (TR), 975.
Hofmann, K. H. See Dauns, John.
Hogben, Lancelot. *Mathematics for the Million*, (TR), 434.
Hoggatt, V. E., Jr. *Fibonacci and Lucas Numbers*, (TR), 724.
Holt, M. J. and McIntosh, A. J. *The Scope of Mathematics. A Fresh Look at Mathematics for the Nonspecialist*, (TR), 218.
Holyoke, T. C. See Bulloff, J. K.
Hopcroft, J. E. and Ullman, J. D. *Formal Languages and their Relation to Automata*, (TR), 1090.
Horner, D. R. *Precalculus: Elementary Functions and Relations*, (TR), 1095.
Hosford, P. L. *Algebra for Elementary Teachers*, (TR), 577.
Howes, V. E. See Dubisch, Roy.
Hoyt, J. P. *A Brief Introduction to Probability*, J. KIEFER, 215.
Hu, Sze-Tsen. *Introduction to Homological Algebra*, (TR), 106.
Hu, S. T. *Differentiable Manifolds*, (TR), 979.
———. *Mathematical Theory of Switching Circuits and Automata*, (TR), 323.
———. *Elements of Real Analysis*, K. M. GARG, 844–845.
Hu, T. T. *Elementary Functions and Coordinate Geometry*, (TR), 859.
Hudson, J. F. P. *Piecewise Linear Topology*, (TR), 1096.
Hurwitz, A., Courant, R. and Rohrl, J. *Vorlesungen über allgemeine Funktionentheorie und elliptische Funktionen*, C. ANAGNOSTAKIS, 955–956.
Introduction to an Algorithmic Language (Basic), NCTM, (TR), 110.
Investigations in Mathematics Education. A

Journal of Abstracts and Annotations, (TR), 969.
Isaacs, G. L. *Real Numbers. A Development of the Real Numbers in an Axiomatic Set Theory*, (TR), 326.
Jacobson, Nathan. *Structure and Representations of Jordan Algebras*, (TR), 963.
Jaiswal, N. K. *Priority Queues*, (TR), 432.
Jedamus, Paul and Frame, Robert. *Business Decision Theory*, (TR), 978.
Jenkins, G. M. and Watts, D. G. *Spectral Analysis and its Applications*, (TR), 979.
Jewett, John and Lindquist, C. B. *Aspects of Undergraduate Training in the Mathematical Sciences*, (TR), 111.
———, et al. *Aspects of Graduate Training in the Mathematical Sciences. Vol. II*, (TR), 856–857.
Johnson, N. L. See Elderton, W. P.
Johnson, R. E. *Linear Algebra*, NEIL GRABOIS, 716.
Jolly, R. F. *Synthetic Geometry*, (TR), 860.
Jones, C. R. See Mulholland, H.
Jones, D. S. *Generalized Functions*, (TR), 108.
Joseph, P. D. See Bucy, R. S.
Joshi, S. W. See Patil, G. P.
Journal of Undergraduate Mathematics, (TR), 969.
Juschkewitsch, A. A. See Dynkin, E. B.
Kac, Mark and Ulam, S. M. *Mathematics and Logic, Retrospect and Prospects*, (TR), 113.
Kalman, R. E., Falb, P. L. and Arbib, M. A. *Topics in Mathematical System Theory*, (TR), 979.
Kaplan, Wilfred. *Introduction to Analytic Functions*. A. E. DANESE, 212.
Kaplansky, Irving. *Rings of Operators*, (TR), 719.
———. *Infinite Abelian Groups*, (TR), 853.
Kapp, K. M. and Schneider, Hans. *Completely 0-Simple Semigroups*, (TR), 963.
Karreman, H. F. (editor). *Stochastic Optimization and Control*, (TR), 109.
Katznelson, Yitzhak. *An Introduction to Harmonic Analysis*, (TR), 108.
Kay, D. C. *College Geometry*, (TR) 1172.
Kaye, Douglas. *Boolean Systems*, (TR), 859.
Keedy, M. L. and Bittinger, M. L. *Trigonometry. A Programmed Text*, (TR), 975.
Keller, H. B. *Numerical Methods for Two-Point Boundary Value Problems*, (TR), 108.
Kells, L. M. *Differential Equations: A Brief Course with Applications*, (TR), 217.
Kennison, J. F. See Hayden, Seymour.
Khinchin, A. Y. *The Teaching of Mathematics*, (TR), 723.
Kiefer, Ferenc. *Mathematical Linguistics in Eastern Europe*, (TR), 972
Kilmister, C. W. *Lagrangian Dynamics. An Introduction for Students*, (TR), 721.
Kilpatrick, Jeremy, and Wirszup, Izaak (editors). *Soviet Studies in the Psychology of Learning and Teaching Mathematics*, (TR), 1171.
Kirillov, A. A. See Gelfand, S. I.
Klaua, Dieter. *Allgemeine Mengenlehre. I. Ein Fundament der Mathematik*, (TR), 326.
Klein, Jacob. *Greek Mathematical Thought and the Origin of Algebra*, (TR), 725.
Klerer, Melvin and Reinfelds, Juris (editors). *Interactive Systems for Experimental Applied Mathematics*, (TR), 723.
Kline, Morris. *Mathematics in the Modern World*, (TR), 218.
Kneebone, G. T. See Rotman, B.
Knopp, M. I. *Theory of Area*, (TR), 854.
Knuth, D. E. *The Art of Computer Programming. Vol. 2: Seminumerical Algorithms*, (TR), 967.
Kolmogorov, A. N. See Alexsandrov, A. D.
Korevaar, Jacob, Chern, S. S., Ehrenpreis, Leon. *Entire Functions and Related Parts of Analysis*, (TR), 431.
Korn, G. A. and Korn, Therese M. *Mathematical Handbook for Scientists and Engineers*, (TR), 111.
Korn, Therese M. See Korn, G. A.
Kovach, L. D. *Modern Elementary Mathematics*, (TR), 220.
Kovacs, I. See Szasz, G.
Kovalenko, I. N. See Gnedenko, B. V.
Kraft, C. H. and van Eeden, Constance. *A Nonparametric Introduction to Statistics*, (TR), 114.
Krause, E. F. See Brumfiel, C. F.
Kreko, Bela. *Linear Programming*, (TR), 322.
Krieghbaum, Hillier and Rawson, Hugh. *To Improve Secondary School Science and Mathematics Teaching*, (TR), 857.
——— and ———. *An Investment in Knowledge. The First Dozen Years of the National Science Foundation's Summer Institutes Programs to Improve Secondary School Science and Mathematics Teaching 1954–1965*, (TR), 1091.

Kripke, Bernard. *Introduction to Analysis*, GEORGE PIRANIAN, 845–846 and (TR), 321.
Krivine. J. L. *Théorie Axiomatique des Ensembles*, (TR), 976.
Krysicki, Wlodzimierz. *Zaehlen und Rechnen Einst und Jetzt*, (TR), 1094.
Kuczma, Marke. *Functional Equations in a Single Variable*, (TR), 719.
Kullback, Solomon. *Information Theory and Statistics*, (TR), 327.
Kuller, R. G. *Topics in Modern Analysis*, (TR), 854.
Kuntzmann, Jean. *Où vont les mathématiques?*, R. CLÉROUX, 1159–1160.
Kunze, Ray. See Segal, Irving.
Kuzawa, Sr. Mary Grace. *Modern Mathematics. The Genesis of a School in Poland*, (TR), 1094.
Kyburg, H. F., Jr. *Philosophy of Science. A Formal Approach*, (TR), 326.
———. *Probability Theory*, (TR), 974.
Labarre, A. E., Jr. *Intermediate Mathematical Analysis*, (TR), 217.
Ladyzenskaja, O. A., Solonnikov, V. A. and Ural'ceva, N. N. *Linear and Quasilinear Equations of Parabolic Type*, (TR), 968.
Lakshmikantham, V. and Leela, S. *Differential and Integral Inequalities. Theory and Applications. Vol. I: Ordinary Differential Equations*, (TR), 968.
Lambek, Joachim. *Lectures on Rings and Modules*, L. S. LEVY, 1088.
Lamotki, Klaus. *Semisimpliziale algebraische Topologie, Die Grundlehren der mathematischen Wissenschaften, Band 147*, (TR), 324.
Lamperti, John. *Probability: A Survey of the Mathematical Theory*, ROGER FISCHLER, 212–213.
Lancaster, Peter. *Theory of Matrices*, (TR), 972.
Lang, Serge. *A Complete Course in Calculus*, (TR), 217.
Lange, L. H. *Elementary Linear Algebra*, J. R. WESSON, 962.
Lapierre, B. and Fortet, R. *Theory of Random Functions*, (TR), 974.
Lapwood, E. R. *Ordinary Differential Equations*, (TR), 109.
Larsen, M. D. *Introduction to Modern Algebraic Concepts*, (TR), 718.
Larson, H. J. *Introduction to Probability Theory and Statistical Inference*, (TR), 974.
Lattes, R. and Lions, J. L. *The Method of Quasi-Reversibility. Applications to Partial Differential Equations*, (TR), 964.
Laugwitz, Delef (editor). *Ueberblicke Mathematik. Band 1*, (TR), 1093.
Lavrent'ev, M. A. See Alexsandrov, A. D.
Lawden, D. F. *The Mathematical Principles of Quantum Mechanics*, (TR), 109.
Lazarsfeld, P. F. and Henry, N. W. *Readings in Mathematical Social Science*, (TR), 216.
Lebedev, N. A. See Smirnov, V. I.
Ledbetter, D. A. *Elementary College Geometry*, (TR), 324.
———. *Elementary College Arithmetic*, (TR), 976.
Leech, J. W. and Newman, D. J. *How to use Groups*, (TR), 971.
Leela, S. See Lakshmikantham, V.
Leigh, E. R. See Gerstenhaber, Murray.
Leithold, Louis. *The Calculus with Analytic Geometry*, (TR), 722.
Lemaire, J. *Hypocycloides et Epicycloides*, (TR), 578.
Lemoyne, T. See Brocard, H.
Lenzen, V. F. *Benjamin Peirce and the U. S. Coast Survey*, (TR), 1094.
LeVeque, W. J. (editor). *Studies in Number Theory. Studies in Mathematics, Vol. 6*, (TR), 972.
Levi, Howard. *Topics in Geometry*, G. D. CHAKERIAN, 962.
Levine, Joan L. See Rosskopf, M. F.
Lewontin, R. C. See Gerstenhaber, Murray.
Lichnerowicz, Andre. *Linear Algebra and Analysis*, E. B. LEACH, 714.
Liebowitz, Harold (editor). *Fracture. An Advanced Treatise*, (TR), 858.
Lightstone, A. H. *Symbolic Logic and the Real Number System*, BURROWES HUNT, 716–717.
Lindquist, C. B. See Jewett, John.
Lindsay, J. W. See Wren, F. L.
Lindsay, R. B. *Introduction to Physical Statistics*, (TR), 322.
Linnik, Yu. V. *Ergodic Properties of Algebraic Fields*, (TR), 106.
Lions, J. L. See Lattes, R.
Littlewood, D. E. *A University Algebra*, (TR), 320.
Littlewood, J. E. *Some Problems in Real and Complex Analysis*, (TR), 431.
Liu, C. L. *Introduction to Combinatorial Mathematics*, (TR), 321.
Locke, Flora M. *College Mathematics for Business*, (TR), 855.

Loebl, E. M. (editor). *Group Theory and its Applications*, (TR), 971.
Lomax, Alan. *Folk Song Style and Culture*, (TR), 323.
Loos, Ottmar. *Symmetric Spaces*, (TR), 968.
Lorenzen, Paul. *Einführung in die operative Logik und Mathematik*, (TR), 1092.
Lovaglia, Florence M., Elmore, M. A. and Conway, Donald. *Algebra: An Intermediate Approach*, (TR), 976.
Love, Gordon. See Shere, Waris.
Luenberger, D. G. *Optimization by Vector Space Methods*, (TR), 721.
Lukacs, Eugene, *Stochastic Convergence*, (TR), 435.
Luke, Y. L. *The Special Functions and their Approximations*, (TR), 720.
Luria, A. R. *The Mind of a Mnemonist. A Little Book about a Vast Memory*, (TR), 434.
Luxemburg, W. A. (editor). *Applications of Model Theory to Algebra, Analysis and Probability*, (TR), 858.
MacColl, L. A. *Fundamental Theory of Servomechanisms*, (TR), 323.
MacDonald, I. D. *The Theory of Groups*, (TR), 321.
Macdonald, I. G. See Atiyah, M. F.
———. *Algebraic Geometry: Introduction to Schemes*, (TR), 725.
Mackey, G. W. *Induced Representations of Groups and Quantum Mechanics*, (TR), 720
MacLean, J. R. See Biggs, Edith E.
Maddox, T. K. and Davis, L. H. *Elementary Functions*, (TR), 976.
Makarov, I. T. *Supplementary Chapters in Mathematical Analysis*. Materials for Students in the Physical-Mathematical Faculties of Pedagogical Institutes, (TR), 1091.
Maksoudian, Y. L. *Probability and Statistics with Applications*, (TR), 727.
Malgrange, B. See Douady, A.
Mandl, Petr. *Analytical Treatment of One-Dimensional Markov Processes*, (TR), 978.
Mangasarian, O. L. *Nonlinear Programming*, (TR), 1172.
Mann, H. B. (editor). *Error Correcting Codes*, (TR), 721.
Mann, R. A. *An IBM 1130 FORTRAN Primer*, (TR), 723.
March, J. G. See Gelbaum, B. R.
Marcus, Marvin. *A Survey of Finite Mathematics*, (TR), 970.
Marcus, Marvin and Minc, Henryk. *Elementary Functions and Coordinate Geometry*, (TR), 1095.
Marks, J. L. See Middlemiss, R. R.
Markushevich, A. I. *The Remarkable Sine Functions*, P. E. BEDIENT, 210.
Markuschewitsch, A. I. See Alexandroff, P. S.
Martin, E. W., Jr. *Mathematics for Decision Making. A Programmed Basic Text. Vol. 1: Linear Mathematics. Vol. 2: Calculus*, (TR), 966.
Martin, Lynda J. *Psychological Investigations in Creativity. A Bibliography (1954–1965)*, (TR), 1094.
Massey, F. J. See Dixon, W. J.
Mathematical Offprint Service, AMS, (TR), 855.
Mathematical Sciences: A Collection of Essays, (TR), 858.
Mathematical Sciences: A Report (COSRIMS), (TR), 1092.
Mathematical Sciences: Undergraduate Education, COSRIMS, (TR), 1092.
Mathematics Teacher, 1959 Issue, (NP), 727.
Matyas, J. See Borsky, V.
May, K. O. *Lectures on Calculus*, R. B. BURCKEL, 847.
Mayers, D. F. See Fox, L.
Maziarz, E. A. and Greenwood, Thomas. *Greek Mathematical Philosophy*, (TR), 219.
McBrien, V. O. *Introduction to Calculus*, (TR), 966.
McCormick, G. P. See Bracken, Jerome.
McCormick, G. P. See Fiacco, A. V.
McEntire, A. D. See Sanders, Paul.
McIntosh, A. J. See Holt, M. J.
McKean, H. P., Jr. *Stochastic Integrals*, (TR), 854.
McTernan, A. J. See Balfour, A.
Measuring Uncertainty. An Elementary Introduction to Bayesian Statistics, A–W, 1969, (TR), 978.
Melese, Jacques. See Hertz, D. B.
Mendelson, Bert. *Introduction to Topology*, (TR), 112.
Mendenhall, William. *Introduction to Probability and Statistics*, (TR), 1096.
Meserve, B. E. and Sobel, M. A. *Introduction to Mathematics*, (TR), 1096.
Messick, D. M. *Mathematical Thinking in Behavioral Sciences*, (TR), 976.
Mewborn, A. C. *A Programmed Course in Algebra with a Separate Summary Textbook*, (TR), 853.
Meyer, Herman. *Introduction to Modern Calcu-*

lus, D. H. BALLOU, 1160, and (TR), 722.
Michie, D. See Collins, N. L.
Middlemiss, R. R., Marks, J. L. and Smart, J. R. *Analytic Geometry*, 3rd ed., (TR), 221.
Miller, J. C. P. See Western, A. E.
Miller, K. S. *Linear Difference Equations*, (TR), 967.
Milne, L. M. *Plane Elastic Systems*, (TR), 1095.
Milnor, John. *Singular Points of Complex Hypersurfaces*, (TR), 725.
Minc, Henryk. See Marcus, Marvin.
Minnick, J. H. and Strauss, R. C. *Beginning Algebra*, (TR), 976.
Minsky, Marvin and Papert, Seymour. *Perceptrons. An Introduction to Computational Geometry*, (TR), 856 and (TR) 1090.
Modern Coordinate Geometry. A Wesleyan Experimental Curricular Study, (TR), 970.
Modern Math Simplified. A Programmed Review Based on Your Course, (TR), 724.
Monk, J. D. *Introduction to Set Theory*, (TR), 969.
Moon, J. W. *Topics on Tournaments*, (TR), 113.
Moore, J. T. *Elements of Linear Algebra and Matrix Theory*, (TR), 106.
More Topics in Mathematics for Elementary School Teachers. Thirtieth Yearbook. NCTM, (TR), 1091.
Morse, Marston and Cairns, S. S. *Critical Point Theory in Global Analysis and Differential Topology. An Introduction*, (TR), 1171.
Moss, R. M. F. and Roberts, G. T. *A Preliminary Course in Analysis*, (TR), 966.
Mostert, P. S. (editor). *Proceedings of the Conference on Transformation Groups. New Orleans, 1967*, (TR), 1089.
Mostow, G. D. and Sampson, J. H. *Linear Algebra*, (TR), 1094.
Mostowski, A. *Constructible Sets with Applications*, (TR), 1092.
Mothes, J. and Rosenstiehl, P. *Mathematics in Management. The Language of Sets, Statistics and Variables*, (TR), 978.
Moursund, D. G. and Duris, C. S. *Elementary Theory and Application of Numerical Analysis*, WINIFRED ASPREY, 847–848.
Mueller, F. J. See Albrecht, W. A.
Mukhopadhyay, A. K. See Williams, E. M.
Mulholland, H. and Jones, C. R. *Fundamentals of Statistics*, (TR), 978.
Murtha, J. A. and Willard, E. R. *Linear Algebra and Geometry*, (TR), 1093.
Musser, G. L. See Hoffer, A. R.
Nachbin, Leopoldo. *Topology on Spaces of Holomorphic Mappings*, (TR), 964.
Nagata, J. *Modern General Topology*, (TR), 979.
Nakano, Hidegoro. *Uniform Spaces and Transformation Groups*, (TR), 434.
Nanney, J. L. and Shaffer, R. D. *Arithmetic: A Review*, (TR), 1096.
Narasimhan, Raghavan. *Analysis on Real and Complex Manifolds*, (TR), 964.
National Science Foundation. *Eighteenth Annual Report for the Fiscal Year Ended June 30, 1968*. Sup't. of Documents, GPO, Washington, D. C., (TR), 1093.
NCTM. Computer Facilities for Mathematics Instruction, R. V. ANDREE, 849.
Neave, H. R. See Foxley, Eric.
Nef, Walter. *Linear Algebra*, (TR), 106.
Nehari, Zeev. *Introduction to Complex Analysis*, NARENDRA SHETH, 429–430.
Nelson, R. J. *Introduction to Automata*, N. D. JONES, 848–849.
Nevanlinna, Rolf and Paatero, V. *Introduction to Complex Analysis*, (TR), 856.
Newman, D. J. See Leech, J. W.
Newman, Morris. *Matrix Representations of Groups*, (TR), 971.
Newman, Peter. *Readings in Mathematical Economics*, (TR), 576.
Newton, Sir Isaac. *The Mathematical Principles of Natural Philosophy*, (TR), 325.
Nielsen, K. L. *Modern Algebra*, (TR), 970.
Nievergelt, Jurg. See Secrest, Don.
Nikaido, Hukukane. *Convex Structures and Economic Theory*, (TR), 856.
Noble, Ben. *Applied Linear Algebra*, (TR), 972.
Noether, Emmy. See Fricke, Robert.
Nohel, J. A. See Brauer, Fred.
Noonan, T. W. See Robertson, H. P.
Northcott, D. G. *Lessons on Rings, Modules and Multiplicities*, (TR), 321.
Nower, Leon. See Bryant, S. J.
Nydegger, A. C. *An Introduction to Computer Programming with an Emphasis on Fortran IV*, (TR), 110.
Nyhoff, L. R. See Zwier, P. J.
O'Brien, Katharine. *Excavation and Other Verse*, (TR), 577.
Oehring, C. C. See Depree, J. D.
Oeuvres de Jacques Hadamard, (TR), 1094.
Ogilvy, C. S. See Breusch, Robert.
Ohmer, M. M. *Elementary Geometry for Teachers*, (TR), 860.
Oikawa, K. See Sario, L.
Olmsted, J. M. *Prelude to Calculus and Linear Algebra*, (TR), 576.

Olmsted, J. M. *Basic Concepts of Calculus*, (TR), 576.
———. *A Second Course in Calculus*, (TR), 576.
Ore, Oystein. *Invitation to Number Theory*, (TR), 718.
———. See Fricke, Robert.
Oresme, Nicole. *Le Livre du ciel et du monde*, (TR), 219.
Ortiz, Alejandro and Zierer, Ernesto. *Set Theory and Linguistics*, (TR), 323.
Osserman, Robert. *Two-Dimensional Calculus*, (TR), 576.
Outcalt, D. L. See Ceder, J. H.
Paatero, V. See Nevanlinna, Rolf.
Palais, R. S. *Foundations of Global Nonlinear Analysis*, (TR), 108.
Papert, Seymour. See Minsky, Marvin.
Parker, I. B. See Fox, L.
Passman, Donald. *Permutation Groups*, (TR), 719.
Patil, G. P. and Sharadchandra, W. J. *A Dictionary and Bibliography of Discrete Distributions*, (TR), 978.
Pattern Recognition. The Journal of the Pattern Recognition Society, (TR), 216.
Payne, W. H. *Machine, Assembly, and Systems Programming for the IBM 360*, (TR), 967.
Pears, D. F. *The Development of Wittgenstein's Philosophy*, (NP), 578.
Pearson, C. C. See Carrier, G. F.
Pearson, Karl (editor). *Tables of the Incomplete Beta-Function*, (TR), 110.
Pease, E. M. J. and Wadsworth, G. P. *Calculus with Analytic Geometry*, (TR), 1090.
Pedersen, J. J. See Davis, F. A.
Person, R. V. *Essentials of Mathematics*, 2nd ed., (TR), 221.
Petersen, G. M. *Regular Matrix Transformation*, (TR), 108.
Petrov, A. Z. *Einstein Spaces*, (TR), 975.
Pi Mu Epsilon Journal, (TR), 577.
Plachy, J. M. and Brinker, O. L. *Elements of Algebra. A Worktext*, Rev. ed., (TR), 976.
Podraza, C. N., *et al. Mathematics. An Introduction*, (TR), 976.
Polites, G. W. *An Introduction to the Theory of Groups*, (TR), 106.
Postgraduate Training in the United Kingdom. 4. Report on Applied Mathematics, (TR), 857.
Proceedings of the Conference, Southern Illinois University. *Orthogonal Expansions and their Continuous Analogues*, (TR), 107.
Przeworska-Rolewicz, Danuta and Rolewicz, Stefan. *Equations in Linear Spaces*, (TR), 720.
Pullan, J. M. *The History of the Abacus*, (TR), 972.
Pyatetskii-Shapiro, I. I. See Gel'fand, I. M.
Queen, N. M. *Vector Analysis*, (TR), 979.
Quine, W. V. *Set Theory and its Logic*, (TR), 858.
Rabotnov, Y. N. *Creep Problems in Structural Members*, (TR), 1172.
Rainich, G. Y. and Dowdy, S. M. *Geometry for Teachers*, C. E. SPRINGER, 841–842, and (TR), 324.
Rainville, E. D. and Bedient, P. E. *Elementary Differential Equations*, (TR), 722.
——— and ———. *A Short Course in Differential Equations*, (TR), 722.
Raj, Des. *Sampling Theory*, (TR), 114.
Rall, L. B. *Computational Solution of Nonlinear Operator Equations*, (TR), 856.
Randol, Burton. *An Introduction to Real Analysis*, (TR), 854.
Randolph, J. F. *Basic Real and Abstract Analysis*, EDWIN HEWITT, 317–318.
Random House Dictionary of the English Language, (TR), 1096.
Rawson, Hugh. See Krieghbaum, Hillier.
Rees, P. K. and Sparks, F. W. *Calculus with Analytic Geometry*, (TR), 966.
Reinfelds, Juris. See Klerer, Melvin.
Reiter, Hans. *Classical Harmonic Analysis and Locally Compact Groups*, (TR), 575.
Rellich, Franz. *Perturbation Theory of Eigenvalue Problems*, (TR), 965.
Renyi, Alfred. *Dialogues on Mathematics*, HARVEY COHN, 1161–1162 and (TR), 534.
Rice, J. R. *The Approximation of Functions, Vol. 2. Nonlinear and Multivariate Theory*, (TR), 965.
Richman, Fred, Walker, Carol, and Wisner, R. J. *Mathematics for the Liberal Arts Student*, (TR), 219.
Richmond, S. B. *Operations Research for Management Decisions*, (TR), 216.
Ringenberg, L. A. *Informal Geometry*, S. F. DICE, 849–850.
Rivlin, T. J. *An Introduction of the Approximation of Functions*, (TR), 973.
Roach, S. A. *The Theory of Random Clumping*, (TR), 114.
Roberts, G. T. See Moss, R. M. F.
Robertson, A. D. J. See Evans, C. R.

Robertson, H. P. and Noonan, T. W. *Relativity and Cosmology*, (TR), 216.
Robinson, P. D. *Fourier and Laplace Transforms*, (TR), 431.
Robison, G. B. *An Introduction to Mathematical Logic*, G. FUHRKEN, 1160–1161, and (TR), 972.
Roessler, E. B. See Alder, H. L.
Rogers, Hartley, Jr. *Theory of Recursive Functions and Effective Computability*, SOLOMON FEFERMAN, 715–716.
Rohlf, James and Sokal, R. R. *Statistical Tables*, (TR), 978.
Rohrl, H. See Hurwitz, A.
Rolewicz, Stefan. See Przeworska-Rolewicz, Danuta.
Ronveaux, A. *Équations Différentielles au Secondaire*, (TR), 1090.
———. *Introduction aux Équations aux Différences Finies*, (TR), 1091.
Room, T. G. *A Background (Natural, Synthetic and Algebraic) to Geometry*, G. P. JOHNSON, 105.
Rosenfeld, Azriel. *An Introduction to Algebraic Structures*, BERNARD JACOBSON, 1084–1085 and (TR), 106.
Rosenlicht, Maxwell. *Introduction to Analysis*, ROBERT ELLIS, 846–847, and (TR), 432.
Rosenstiehl, P. See Mothes, J.
Rosser, J. B. *Simplified Independence Proofs*, (TR), 1171.
Rosskopf, M. F., Levine, J. L. and Vogeli, B. R. *Geometry, a Perspective View*, (TR), 725.
Rotman, B. and Kneebone, G. T. *The Theory of Sets and Transfinite Numbers*, (TR), 727.
Rubinstein, Zalman. *A Course in Ordinary and Partial Differential Equations*, (TR), 856.
Rudin, Walter. *Function Theory in Polydiscs*, (TR), 1171.
Runyon, R. P. See Haber, Audrey.
Russell, Bertrand. *The Art of Philosophizing and Other Essays*, (TR), 435.
Rutherford, D. E. *Substitutional Analysis*, (TR), 719.
Saaty, T. L. *Mathematical Models of Arms Control and Disarmament. Application of Mathematical Structures in Politics*, (TR), 432.
Sage, E. R. *Problem-Solving with the Computer*, (TR), 969.
Sah, Chih-Han, See Brauer, Richard.
Salas, S. L. See Hille, Einar.
Saltz, Daniel. See Bryant, S. J.
Salvadori, Mario. *Mathematics in Architecture*, (TR), 966.
Sammet, J. E. *Programming Languages: History and Fundamentals*, (TR), 967.
Sampson, J. H. See Mostow, G. D.
Sanchez, D. A. *Ordinary Differential Equations and Stability Theory: An Introduction*, (TR). 108.
Sanders, Paul and McEntire, A. D. *Elementary Mathematics. A Logical Approach*, (TR), 724.
Sandler, Reuben. See Albert, A. A.
Sanin, N. A. *Constructive Real Numbers and Function Spaces*, (TR), 326.
Sario, L. and Oikawa, K. *Capacity Functions*, (TR), 1089.
Savage, I. R. *Statistics: Uncertainty and Behavior*, (TR), 435.
Schaaf, W. L. (editor). *Reprint Series*, (TR), 1093.
Schmitt, S. A. *Measuring Uncertainty. An Elementary Introduction to Bayesian Statistics*, (TR), 978.
Schneider, Hans and Barker, G. P. *Matrices and Linear Algebra*, A. B. FARNELL, 958.
Schneider, Hans. See Kapp, K. M.
Schubert, Horst. *Topology*, (TR), 435.
Schuh, Fred. *The Master Book of Mathematical Puzzles and Recreations*, (TR), 1096.
Schwartz, J. T. *W*-Algebras*, (TR), 108.
———. See Hausner, Melvin.
Scraton, R. E. *Elementary Numerical Methods*, (TR), 110.
———. See Bruckheimer, M.
Scriba, C. J. *The Concept of Number. A Chapter in the History of Mathematics, with Applications of Interest to Teachers*, (TR), 860.
Secrest, Don and Nievergelt, Jürg. *Emerging Concepts in Computer Graphics*, (TR), 723.
Seeley, R. T. *Calculus of One Variable*, (TR), 217.
Segal, Irving and Kunze, Ray. *Integrals and Operators*, KEITH PHILLIPS, 573–574.
Seidenberg, A. *Elements of the Theory of Algebraic Curves*, (TR), 324.
Selacek, Jiri. *Einführung in die Graphentheorie*, (TR). 435.
Selby, Samuel and Sweet, Leonard. *Sets—Relations—Functions*, 2nd ed., (TR), 969.
Sen, D. K. *Fields and/or Particles*, (TR), 432.
Serre, Jean-Pierre. *Abelian l-adic Representations and Elliptic Curves*, (TR), 107.
———. *Ferdinard Georg Frobenius, Gesammelte Abhandlungen*, (TR), 726.
Seyfert, W. C. (editor). *The Continuing Revolution in Mathematics*, (TR), 111.

Shaffer, R. D. See Nanney, J. L.
Shanks, M. E. and Gambill, Robert. *Calculus of the Elementary Functions*, (TR), 855.
Sharadchandra, W. J. See Patil, G. P.
Shere, Waris and Love, Gordon. *Applied Mathematics for Engineering and Science*, (TR), 859.
Shilov, G. E. *Generalized Functions and Partial Differential Equations*, (TR), 854.
———. See Gel'fand, I. M.
Shnol, E. E. See Gel'fand, I. M.
SIAM, I Sedov. *Problems of Hydrodynamics and Continuum Mechanics, 1969*, (TR), 1172.
Sikorski, Roman. *Boolean Algebra*, (TR), 1089.
Silverman, R. A. *Introductory Complex Analysis*, A. H. CAYFORD, 214–215.
———. *Modern Calculus and Analytic Geometry*, (TR), 722.
Singh, Jagjit. *Great Ideas of Operations Research*, (TR), 323.
Sinkov, Abraham. *Elementary Cryptanalysis. A Mathematical Approach*, (TR), 1090.
Sion, Maurice. *Introduction to the Methods of Real Analysis*, W. FULKS, 1082–1083, and (TR) 108.
Sippl, C. J. *Computer Dictionary and Handbook*, (TR), 323.
Slomson, A. B. See Bell, J. L.
Smart, J. R. See Middlemiss, R. R.
Smirnov, V. I. and Lebedev, N. A. *Functions of a Complex Variable*, (TR), 720.
Smith, A. H. and Albrecht, W. A., Jr. *Fundamental Concepts of Analysis*, C. A. GROBE, JR., 430–431.
Smith, J. M. *Mathematical Ideas in Biology*, (TR), 576.
Smith, W. K. *Calculus with Analytic Geometry*, (TR), 967.
Smullyan, R. M. *First Order Logic: Ergebnisse der Mathematik und ihrer Grenzgebiete, Vol. 43*, (TR), 326.
Snyder, H. H. *A Hypercomplex Function-Theory Associated with Laplace's Equation*, (TR), 109.
Soare, Mircea. *Application of Finite Difference Equations to Shell Analysis*, (TR), 576.
Sobel, M. A. See Meserve, B. E.
Sokal, R. R. See Rohlf, James.
Solomon, D. W. *Denjoy Integration in Abstract Spaces*, (TR), 965.
Solonnikov, V. A. See Ladyzenskaja, O. A.
Solovyev, A. D. See Gnedenko, B. V.
Soule, J. L. *Linear Operators in Hilbert Spaces*, (TR), 971.
Sparks, F. W. See Rees, P. K.
Speer, E. R. *Generalized Feynman Amplitudes*, (TR), 965.
Spencer, D. D. *The Computer Programmer's Dictionary and Handbook*, (TR), 110.
Spiegelman, Mortimer. *Introduction to Demography*, (TR), 109.
Springer, C. H., et al. *Mathematics for Management Series*, GERHARD TINTNER, 852.
Staal, J. F. See van Rootselaar, B.
St. Andonie, George. *Istoria Matematicil in Romania*, (TR), 971.
Stalnaker, A. W. See Youse, B. K.
Stanaitis, O. E. An Introduction to Sequences, H. W. GOULD, 210–211.
Stein, S. K. *Calculus for the Natural and Social Sciences*, (TR), 217.
———. *Mathematics the Man-Made Universe. An Introduction to the Spirit of Mathematics*, (TR), 859.
Steinhaus, H. *Mathematical Snapshots*, (TR), 577.
Stoker, J. J. *Differential Geometry*, (TR), 968.
Stong, R. E. *Notes on Cobordism Theory*, (TR), 725.
Strauss, Aaron, *An Introduction to Optimal Control Theory*, (TR), 110.
Strauss, R. C. See Minnick, J. H.
Struik, D. J. *A Source Book in Mathematics, 1200–1800*, (TR), 726.
Stuart, Fredric. *Fortran Programming*, (TR), 723.
Stubblefield, Beauregard. *An Intuitive Approach to Elementary Geometry*, (TR), 970.
Sweet, Leonard. See Selby, Samuel.
Swokowski, E. W. *Fundamentals of Trigonometry*, (TR), 976.
Symonds, D. A. See Bommer, C. M.
Szasz, G., Geher, L., Kovacs, I. (editors). *Contests in Higher Mathematics*, (TR), 577.
Talman, J. D. *Special Functions, A Group Theoretic Approach*, (TR), 854.
Tatarski, V. I. *Wave Propagation in a Turbulent Medium*, (TR), 216.
Taylor, A. E. and Halberg, C. J. A., Jr. *Calculus, with Analytic Geometry. Functions of One Variable*, (TR), 967.
Taylor, H. E. See Wade, T. L.
Topological Papers of Eduard Cech, (TR), 979.
Tou, J. T. (editor). *Advances in Information Systems Science, Vol. 1*, (TR), 967.
Tricomi, F. G. *Repertorium der Theorie der Differentialgleichungen*, (TR), 322.
Trijitzinsky, W. J. *La Totale-D de Denjoy et la Totale-S Symétrique*, (TR), 1089.

Tropper, A. Mary. *An Introduction to Linear Algebra*, (TR), 1172.
Trotter, H. J. See Williamson, Richard.
Tryon, C. W. *Elementary Geometry for College*, (TR), 970.
Tulcea, C. I. See Bartle, R. G.
Turan, Paul (editor). *Number Theory and Analysis. (E. Landau 1877–1938)*, (TR), 1172.
Turc, Albert. *Introduction Élémentaire à la Géométrie Lobatschewskienne*, (TR), 725.
Tychonov, A. N. *Partial Differential Equations of Mathematical Physics*, R. L. BORRELLI, 717–718.
Ullman, J. D. See Hopcroft, J. E.
Ural'ceva, N. N. See Ladyzenskaja, O. A.
Uspenski, W. A. See Dynkin, E. B.
Vance, E. P. *An Introduction to Modern Mathematics*, 2nd ed., (TR), 221.
Van Eeden, Constance. See Kraft, Charles H.
Van Rootselaar, B. and Staal, J. F. (editors). *Logic, Methodology and Philosophy of Science, III*, (TR), 1172.
Veinott, A. F. See Dantzig, G. B.
Vick, G. R. *Elementary Mathematical Structure*, (TR), 857.
Vidal, Pierre. *Systèmes échantillonnés linéaires*, (TR), 721.
Vilenkin, N. Ja. *Special Functions and the Theory of Group Representations*, (TR), 322
Vogeli, B. R. *Soviet Secondary Schools for the Mathematically Talented*, (TR), 577.
———. See Rosskopf, M. F.
Wade, T. L., and Taylor, H. E. *Contemporary Analytic Geometry*, (TR), 965.
Wadsworth, G. P. See Pease, E. M. J.
Wahlert, H. E. See Cooley, H. R.
Walker, Carol. See Richman, Fred.
Wallace, G. E. *Elementary Algebra*, (TR), 727.
Walsh, J. E. *Handbook of Nonparametric Statistics*, (TR), 327.
Warusfel, Andre. *Dictionnaire raisonné de mathématique*, (TR), 1093.
Wasan, M. T. *Stochastic Approximation*, (TR), 974.
Watts, D. G. See Jenkins, G. M.
Watts, D. G. (editor). *The Future of Statistics. Proceedings of a Conference on the Future of Statistics Held at the University of Wisconsin, Madison, Wisconsin, June 1967*, (TR), 435.
Wegner, Peter. *Programming Languages, Information Structures, and Machine Organization*, (TR), 967.
Weinberg, A. M. *Reflections on Big Science*, (TR), 724.
Western, A. E. and Miller, J. C. P. *Tables of Indices and Primitive Roots*, (TR), 107.
Weston, J. D. and Godwin, H. J. *Some Exercises in Pure Mathematics, with Expository Comments* (TR), 433.
Wheeler, B. W. See Crowdis, D. G.
Wheeler, J. A. *Einsteins Vision. Wie steht es Heute mit Einsteins Vision, alles als Geometrie aufzufassen?*, (TR), 578.
———. See DeWitt, C. M.
Wheelon, A. D. *Tables of Summable Series and Integrals Involving Bessel Functions*, (TR), 109.
White, A. J. *Real Analysis: An Introduction*, J. B. ROBERTS, 959.
White, D. J. *Dynamic Programming*, (TR), 974.
White, P. A. *College Algebra and Trigometry*, (TR), 221.
Whiteside, D. T. (editor). *The Mathematical Papers of Isaac Newton, Vol. III, 1670–1673*, (TR), 972.
Whitworth, D. *Basic Digital Computer Concepts*, (TR), 110.
Wilder, R. L. *Evolution of Mathematical Concepts*, D. J. STRUIK, 428–429, and (TR), 219.
Wilkes, M. V. *Time-Sharing Computer Systems*, (TR), 324.
Willard, E. R. See Murtha, J. A.
Willerding, Margaret F. *Arithmetic: A First Course in Mathematics*, (TR), 976.
Williams, E. M. and Mukhopadhyay, A. K. *Solutions of Ordinary Linear Differential Equations with Constant Coefficients*, (TR), 433.
Williamson, Richard, Crowell, R. H. and Trotter, H. F. *Calculus of Vector Functions*, 2nd ed., (TR), 218.
Wirszup, Izaak. See Kilpatrick, Jeremy.
Wisner, R. J. See Richman, Fred.
Wolberg, J. R. *Prediction Analysis*, R. E. ROTH, 211–212.
Wonnacott, R. J. See Wonnacott, T. H.
Wonnacott, T. H. and Wonnacott, R. J. *Introductory Statistics*, (TR), 978.
Wren, F. L. and Lindsay, J. W. *Basic Algebraic Concepts*, (TR), 964.
Wussing, Hans. *Die Genesis des abstrakten Gruppenbegriffes. Ein Beitrag zur Entsteh-*

ungsgeschichte der abstrakten Gruppentheorie, (TR), 1093.
Yaglom, I. M. *Geometric Transformations*, II, (TR), 971.
Yakowitz, S. J. *Mathematics of Adaptive Control Processes*, (TR), 973.
Yale, P. B. *Geometry and Symmetry*, SEYMOUR SCHUSTER, 209–210.
Ylvisaker, Donald. See Gangolli, R. A.
Young, L. C. *Lectures on the Calculus of Variations and Optimal Control Theory*, (TR), 965.
Youse, B. K. and Stalnaker, A. W. *Calculus for Students of Business and Management*, KENNETH LOEWEN, 961.
——— and ———, *Calculus for the Social and Natural Sciences*, (TR), 967.
Yvon, J. *Correlations and Entropy in Classical Statistical Mechanics*, (TR), 1095.

Acknowledgements, 1170
Editorials, 712, 840.

Zaanen, A. C. *Integration*, C. W. AUSTIN, 959–960.
Zabusky, N. J. *Topics in Nonlinear Physics. Proc. of Physics Session International School of Nonlinear Mathematics and Physics*, (TR), 1095.
Zalgaller, V. A. *Convex Polyhedra with Regular Faces*, (TR), 860.
Zangwill, W. I. *Nonlinear Programming: A Unified Approach*, (TR), 974.
Zaring, W. M. *An Introduction to Analysis*. S. G. HACKER, 960–961.
Zemanian, A. H. *Generalized Integral Transformation*, (TR), 720.
Zierer, Ernesto. See Ortiz, Alejandro.
Zwier, P. J. and Nyhoff, L. R. *Essentials of College Mathematics*, (TR), 860.
Zygmund, A. *Trigonometric Series*, (TR), 854.

NEWS AND NOTICES

PERSONAL ITEMS

115–116, 221, 327–328, 436, 578–580, 728–730, 861–863, 980, 1097, 1173.

GENERAL INFORMATION

Advanced placement conference in mathematics at Texas A & M University, 328.
Canadian Mathematical Congress—Twenty-third Summer Meeting, 437.
Conference on International Mathematics Programs—University of Arkansas, 731.
Dubinsky Affair, a report, N. D. KAZARINOFF, 1173–1176.
Eighth Symposium of the National Gaming Council, 437.
Establishment of the preservice teacher education program, 980–981.
Fellowship and research opportunity in the mathematical sciences, 1097.
Foreign scholars available for appointment in U. S. Universities and Colleges under provision of the Fulbright-Hays Act, 1969–1970, 580.
IEEE International Symposium on Circuit Theory—1969, 437.
International Commission on Mathematical Instruction (ICMI) First International Congress on Mathematical Education, 580.
November 1968 meeting at Elmhurst College focusing on the Two Year Community College, 222.
150th Anniversary celebration of Indiana University in 1970, 328.
Preliminary announcement of special year on functions of several complex variables at the University of Maryland, 863.
Summer institutes for Junior College teachers of mathematics, V. O. MCBRIEN, 437.
Topology Conference Proceedings, 116.
Travel Grants for attendance at the International Congress of Mathematics, Nice, September 1–10, 1970, 863.
Twelfth Biennial International Seminar of the Canadian Mathematical Congress, 116.
University of Texas—Seventh Annual Symposium on Biomathematics and Computer Science in the Life Sciences, 222.
U. S. Naval Academy, Annapolis—Symposium on the State of Mathematics today and Dedication of Chauvenet Hall, 580, 730.
Waukesha Mathematical Society, 222, 983.

NECROLOGY

Armstrong, P. L., 1173.
Barrett, J. H., 863.
Brinkman, H. G., 863.
Brodsky, A. R., 580.
Cain, Ethel M., 1097.
Carter, C. W., 1097.
Downing, H. H., 580
Folkman, J. H., 863.
Goldfarb, Edwin, 1097.
Greaney, W. R., 580.
Halpern, Edward, 863.
Johnson, H. J., 863.
Jordan, H. E., 221.
Kaelin, G. R., 863.
Lambert, W. D., 328.
Morse, D. S., 863.
Moseley, D. L., 863.
Northrop, E. P., 863.
Owens, Helen B., 1097.
Rademacher, Hans, 863.
Rulon, P. J., 221.
Russell, Helen G., 328.
Salkind, C. T., 328.
Scott, J. L., 1097.
Smith, G. W., 221.
Wadkins, O. L., Jr., 863.

REPORTS AND ANNOUNCEMENTS OF THE ASSOCIATION AND ITS SECTIONS

MEETINGS AND ANNOUNCEMENTS OF THE ASSOCIATION

Academic members elected into the Association, H. L. ALDER, 330–333, 1187.
Acknowledgment, 1189.
Announcement of Lester R. Ford Awards, H. L. ALDER, 864–865.
By-Laws of the Mathematical Association of America (Inc.) 581–586.
Fiftieth Summer Meeting of the Association, H. L. ALDER, 1176–1186.
Fifty-second Annual Meeting of the Association, H. L. ALDER, 438–445.
Institutional Members of the Association, 330–333.
January 1970 Meeting moved from Miami to San Antonio, H. L. ALDER, 1186.
Life memberships, H. L. ALDER, 981.
New Sectional Governors of the Association, A. B. WILLCOX, 864.
New types of membership, H. L. ALDER, 981.
Officers and Committees as of February 1, 1969, 445–450.
Proposed Amendment to the By-Laws, H. L. ALDER, 1099.
Proposed revision of the By-Laws of the MAA, H. L. ALDER, 581.
Report of the treasurer for the year 1968, 586.
The 1969 William Lowell Putnam Mathematical Competition, 864.

MEETINGS OF ITS SECTIONS

Florida, March 1969, H. E. TAYLOR, 1187–1188.
Indiana, November 1968, M. J. MANSFIELD, 223. May 1969, M. J. MANSFIELD, 985–986.
Iowa, April 1969, B. E. GILLAM, 982.
Kentucky, May 1969, W. H. SPRAGENS, 985.
Louisiana-Mississippi, February 1968. L. VIRGINIA CARLTON, 116–117.
Maryland-District of Columbia-Virginia, November 1968, S. L. GULICK, 731. April 1969, DENNY GULICK, 1098.
Michigan, March 1969, H. T. SLABY, 1188.
Minnesota, October 1968, WARREN THOMSEN, 223.
Missouri, April 1969, VIRGINIA M. KERN, 1098.
Nebraska, April 1969, H. M. COX, 868–869.
New Jersey, November 1968, JOHN RECKZEH 329. May 1969, JOHN RECKZEH, 1099.
North Central, April 1969, W. J. THOMSEN, 982–983.
Northeastern, November 1968, G. W. BEST, 587. June 1969, G. W. BEST, 1188–1189.
Northern California, February 1969, G. L. ALEXANDERSON, 865.
Ohio, April 1969, FOSTER BROOKS, 983.
Oklahoma-Arkansas, March 1969, H. V. HUNEKE, 865–867.
Philadelphia, November 1968, A. E. FILANO, 587.
Rocky Mountain, May 1969, C. R. WYLIE, 986–987.
Southeastern, March 1969, HENRY SHARP, JR., 867–868.
Southern California, March 1969, D. H. POTTS, 868.
Texas, April 1969, J. C. BRADFORD, 983–985.
Upper New York State, November 1968, P. SHAEFER, 329–330. May 1969, P. SHAEFER, 869.
Wisconsin, May 1969, R. W. CHRISTENSEN, 987.